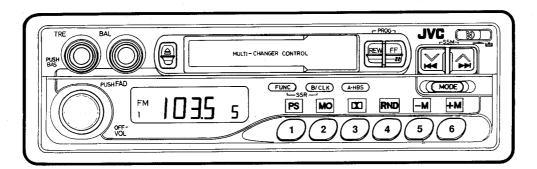
# JVC

# SERVICE MANUAL

### MULTICHANCER CONTROLLEGEVER

## KS-RT70 B/E/G/GE/GI





Area Suffix
в U.К.
E······ Continental Europe
G ····· Germany
GI······ltaly
GE ·····Eastern Europe,
Austria and Switzland

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### Features

- Detachable Control Panel
- Controller for control of CD changers containing up to 108 compact discs (for example, when 6 JVC XL-MG1800 CD Changers are connected, each XL-MG1800 contains 3 magazines so that this controller can access the discs in 18 magazines; with each magazine containing 6 discs, consequently it gives access to up to 108 discs)
- High Sensitivity Tuner
- AM/FM-Stereo PLL Synthesizer Tuner
- 24-Station Preset Tuning (FM-18, AM (MW/LW)-6)
- Preset scan/Seek/Manual Tuning
- Strong-station Sequential Memory (SSM)
- SK/DK Traffic Information Reception (KS-RT70 G/GE)
- Special-preset Station Reserve (SSR)
- U-Turn Auto-Reverse Mechanism

- Ignition Key-off Release/Key-on Play Mechanism
- Dolby\* B Noise Reduction
- 4-Channel Amplifier System Maximum Power Output of 8 W per channel (Front)/25 W per channel (Rear)
- Active Hyper Bass Sound
- Active-illuminated Operating System (AOS)
- Clock
- Line Output Terminal

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol DD trademarks of Dolby Laboratories Licensing Corporation.

### Specifications

#### **AUDIO AMPLIFIER SECTION**

Maximum Power Output:

(Front) 8 W per channel (Rear) 25 W per channel

Continuous Power Output (RMS):

(Front) 3 W per channel into 4  $\Omega$ , 100 to 20,000

Hz at no more than 0.8% THD

(Rear) 12 W per channel into 4  $\Omega$ , 40 to 20,000

Hz at no more than 0.8% THD

Load impedance: 4  $\Omega$  (4-  $8 \Omega$  Allowable)

Tone control Range

Bass: ±10 dB at 100Hz

Treble: ±10 dB at 10 kHz

Frequency Response: 40 - 20,000 Hz

Signal-to-Noise Ratio: 70 dB

Line-Output Level/impedance:

0.5 V/20 kΩ load (250 nWb/m)

#### RADIO SECTION

Frequency Range

FM: 87.5 - 108.0MHz

AM: (MW) 522 - 1,620 kHz (LW) 144 - 281 kHz (Manual)

144 - 279 kHz (Auto)

### [FM Tuner]

Usable Sensitivity: 12.1 dBf (1.1  $\mu$ V/75 $\Omega$ )

50 dB Quieting Sensitivity: 16.3 dBf

(1.8 μV/75Ω)

Alternate Channel Selectivity (400 kHz): 65 dB

Frequency Response: 40 - 15,000 Hz

Stereo Separation: 35 dB

Capture Ratio: 1.5 dB

[MW Tuner] Sensitivity: 20 µV Selectivity: 35 dB [LW Tuner] Sensitivity: 50 µV

### CASSETTE DECK SECTION

Wow & Flutter: 0.11 % (WRMS)

Fast Wind Time: 100 sec. (C-60)

Frequency Response (NR-OFF): 50 - 16,000 Hz (±3

dB)

Signal-to-Noise Ratio (Normal tape)

(Dolby NR on): 60 dB

(Dolby NR off): 52 dB

Stereo Separation: 40 dB

Power Requirement

Operating Voltage: DC 14.4 V (11 V - 16 V Allowable)

Grounding System: Negative Ground

Dimensions (W x H x D)

Installation Size: 182 x 52 x 152 mm

(7-13/16" x 2-1/16" x 6")

Panel Size: 189 x 58 x 15 mm

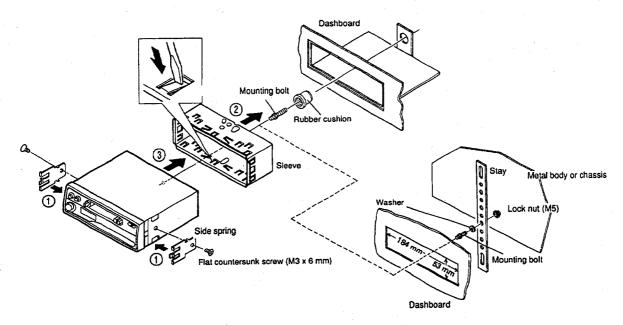
(7-1/2" x 2-5/16" x 5/8")

Gross Weight: 2.1 kg (4.7 lbs)

Design and specifications subject to change without notice.

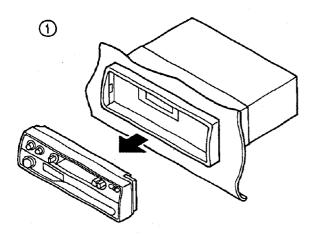
### Installation(IN-DASH Mounting)

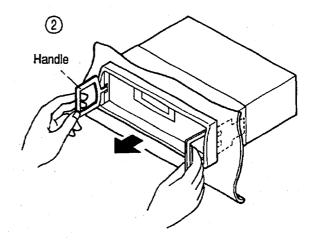
- Before using this unit for the first time, press the eject button fully.
- The following illustration shows a typical installation, however, always adjust to correspond to the car in which the unit is to be installed. If you have any questions and for installation kits, consult a JVC "IN-CAR ENTERTAINMENT" dealer.
- Attach the side springs.
   Install the sleeve in the
- Install the sleeve in the dashboard.
  - After the sleeve is installed in the dashboard, select and bend the appropriate tabs to hold the sleeve firmly in place.
    - Next, mount the mounting bolt onto the rear of the unit's body and slide the rubber cushion onto this bolt.
- ③ Slide the body of this unit into the sleeve so that they are locked together.
- · Follow the numbers for mounting.



### Removing the body of unit

- Before removing the body of this unit, remove the nut, connector, etc. retaining the rear section.
- 1 Remove the Control Panel by sliding the release switch ( ) to the right.
- 2) As illustrated, insert the handles between the side springs and sleeve. Then, slide the unit out while pressing the handles toward each other.





### **■** Electrical Connections

To prevent short circuits, while making connections, keep the battery's negative terminal disconnected.

We recommend that you make all electrical connections before installing the unit. If you're not sure how to correctly install this unit, have it installed by a qualified service technician.

This unit is designed for 12 volts DC, Negative Ground. If your vehicle does not have 12 volts negative ground electrical system you need a voltage inverter which can be bought from a JVC "IN-CAR ENTERTAINMENT" dealer.

 Maximum input of speakers should be more than 25 W at rear and 8 W at front with an impedance of 4 to 8  $\Omega$  .

#### Cautions:

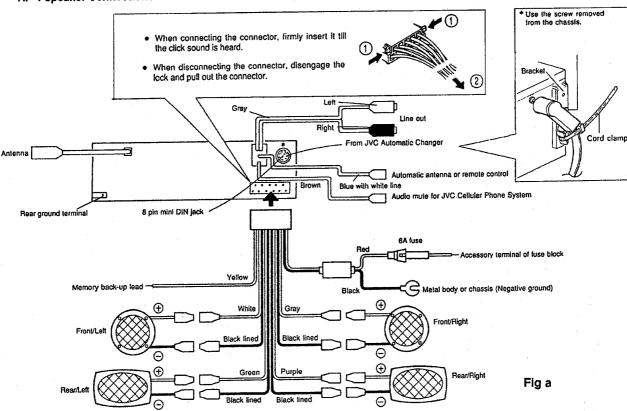
This unit uses BTL (Balanced Transformerless) amplifier circuitry, i.e., floating ground system, so please comply with the following:

1. Be sure you do not connect the black lined speaker leads to a common point.

Don't connect speaker leads to the metal body or chassis.

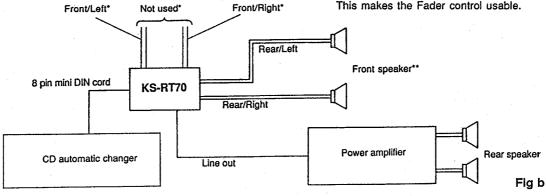
- When not using the automatic antenna or audio mute lead, cover the terminal with insulating tape to prevent the lead from shorting.
- · Be sure to ground this unit to the car's chassis.

### A. 4-speaker connections



### B. 4-speaker connection by adding a power amplifier

• When making the 4-speaker connections using a power amplifier, connect the front speakers to the rear speaker cords. (In such a case, do not use the front speaker cords.\*) This makes the Fader control usable.



### C. Line terminal connections (Line out)

Since this unit has line-out terminals, an amplifier and other equipment can be used to upgrade your car stereo system.

 When connecting an amplifier, connect this unit's line-out terminals with the amplifier's line-in terminals.

### D. Power aerial (Automatic antenna) connections

This set is equipped for the automatic extension and retraction of a power aerial when the power switch is turned on and off. The connection from the audio unit (REMOTE blue with white line lead) is via a separate relay to the fully automatic aerial motor unit incorporating a built-in terminal circuit.

### E. Memory back-up lead

Connect this lead to a position where live power is supplied even when the ignition key is taken out.

### F. Fader control

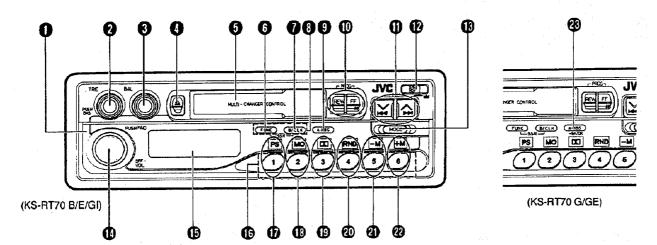
 When used in a 4-speaker system (Fig. a)

Use this control to balance the volume levels of the front and rear speakers. Turn counterclockwise to decrease the volume levels of the rear speakers and clockwise to decrease those of the front speakers. The overall volume level can be adjusted with the volume knob.

 4-speaker connection system by adding a power amplifier (Fig. b)

Turn clockwise to decrease the volume level of the rear speakers which are connected to the power amplifier and counterclockwise to decrease that of the front speakers which are connected directly to the receiver.

 When used in a 2-speaker system Set this control to the center position.



- Control panel
- Treble (TRE)/Push Bass (PUSH BAS)
- Balance (BAL) control
- Eject (♠) button
- 6 Cassette loading slot
- Function (FUNC) button
- Band (B)/Clock (CLK) button.
- Special-preset Station Reserve (SSR) buttons
- Active Hyper Bass Sound (A.HBS) button (KS-RT70 B/E/GI)
- Program (PROG)/REW, FF buttons
- Tuning/SSM/Time adjustment/Skip (Search) buttons Down frequency/Hour adjustment (∨)/(►

Up frequency/Minute adjustment

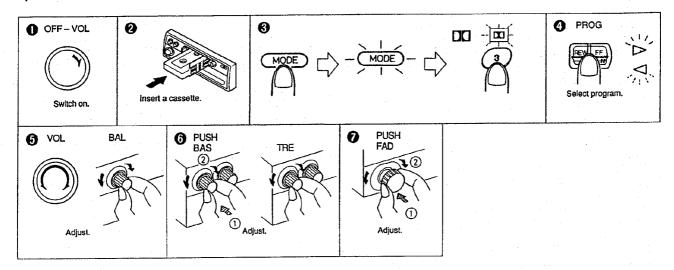
(△)/(►►)

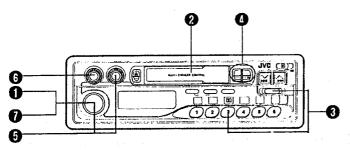
© Control panel release ( ♠) switch

- MODE button
- Power on-OFF/volume (VOL)/Push fader (PUSH FAD) control
- Display window
- Preset station buttons (No. 1 No. 6)
  Disc number buttons (No. 1 No. 6)
- Active Hyper Bass Sound button (A.HBS) SK/DK button (KS-RT70 G/GE)
- Press the following buttons (10 22) after the MODE button has been pressed and its indicator is lit red. 5 seconds after the completion of an operation, the MODE button's red indicator will go out.
- Preset Scan (PS) button and indicator
- Mono (MO) button and indicator
- Dolby B NR (DD) button and indicator
- Random (RND) button and indicator
- Magazine select (-M) button and indicator
- Magazine select (+M) button and indicator

### Tape operation

Operate in the order shown.





### Dolby B NR button

Set the Dolby B NR ( DD ) button as required after the MODE button has been pressed and its red indicator is lit.

ON - DD indicator lights.
OFF - DD indicator goes out.

### **IGNITION KEY-OFF RELEASE** (KEY-ON PLAY) MECHANISM

When the ignition key is turned off, this "key-off release" mechanism will automatically release the tape from the magnetic head. This will set the mechanism to the standby mode. When the key is turned on, it will automatically return to the playback mode.

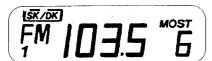
### TO FAST FORWARD AND REWIND

Press the FF button to fast forward the side being played back; when the end of the tape is detected, the tape is reversed and played back from the beginning of the other side. Press the REW button to rewind the tape. When the tape is rewound to the beginning, it is played back again. Lightly press the other PROG button to start play from the current position during the fast forward or rewind mode.

### **AUTO-REVERSE MECHANISM**

When the tape reaches the end of one side, this mechanism automatically switches over to play back the other side. To listen to the other side while playing one side, press the PROG buttons. The change in the tape transport direction can be checked from the Tape Direction indicators.

4



Indicators (for tuner section)
Band (FM1-FM2-FM3-AM)
Radio frequency
Preset Station
FM Stereo (ST)
Mono (MO)
SK/DK (KS-RT70 G/GE)





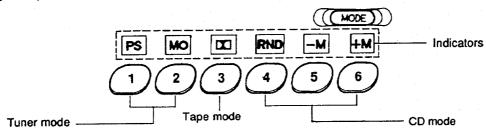
Indicators (for tape deck section) TAPE mode Tape direction (◄►) Dolby B NR (□□) **4** 



Indicators (for CD changer control)
Disc number
Track number
Magazine number
DISC
TRACK
MAG
RND
--©E1-©E8

Indicator (for other controls)
Time
(②)
AOS

## Active-illuminated Operating System (AOS)



The indicators corresponding to each mode light up green in order to make operation simple. (For example, the PS and MO indicators light when the tuner mode is engaged. When the MODE button is pressed while engaged in the tuner mode, the PS and MO indicators blink. If one of the required mode buttons is pressed while the PS and MO are blinking, the corresponding operation mode is engaged.)

\*Each time the power is switched on, "AOS" is displayed.

### \*AOS demonstration mode

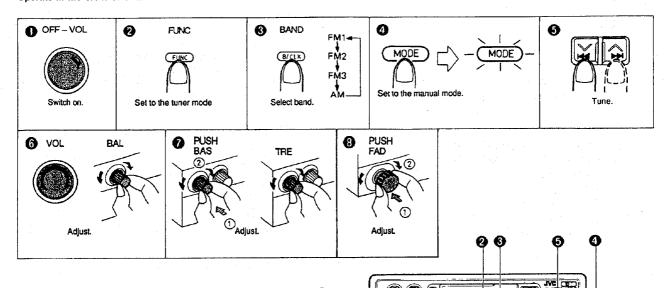
In this mode, each of the AOS indicators alternately blinks.

Press the preset station button (2) for more than 3 seconds while pressing the FUNC button, to set the AOS demonstration mode. When this unit is in AOS demonstration mode, normal operation of the KS-RT70 is possible, with functions being indicated in the display. (After the operation is completed, AOS demonstration mode will be resumed in 15 seconds.)

To cancel this mode, press the preset station button (2) for more than 3 seconds while pressing the FUNC button.

### Radio Operation

Operate in the order shown.



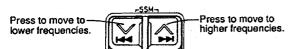
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### MANUAL TUNING

Set to the manual mode using the MODE button. When the MODE button's light is red, the unit is in the manual mode. Then, by pressing the Tuning button, you can move up and down the frequency band. The frequency band is scanned as long as either button is pressed. You can step through the frequency in 50 kHz units for FM, 9 kHz units for MW and 1 kHz unit for LW.

In AM operation, the frequency moves continuously from the MW (522 – 1,620 kHz) to the LW (144 – 281 kHz) band and vice versa.

 When approx. 5 seconds have elapsed after completion of manual tuning operations, the unit switches back to the seek mode and the MODE button's red indicator goes out.



### **SEEK TUNING**

The unit is set to the seek mode when the MODE button's red indicator goes out. Then, by pressing the  $\wedge$  or  $\vee$  button the unit tunes to the adjacent station with a higher or lower frequency.

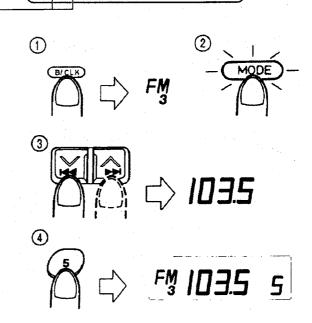
In AM operation, the frequency moves continuously from the MW to the LW band and vice versa.

### PRESET BUTTON TUNING

### **Presetting stations**

6 stations in each band (FM1, FM2, FM3 and AM (MW/LW)) can be preset as follows;

 Example (when presetting Preset Station button "5" to FM station at 103.5 MHz)



[60]

- Select the FM3 band using the band (B) button.
- ② Set to the manual mode.
- 3 Tune to the desired station.
- Press Preset Station button "5" for more than 2 sec. (When "5" blinks in the Preset Station display, the station is preset.)
- Repeat the above procedure for each of the other 5 stations using a different Preset Station button each time.
- Follow the above procedure for the other bands (FM1, FM2 and AM (MW/LW)).

#### Notes:

 The previous preset station is erased when a station is newly preset because the new station is stored in memory.  The preset station is erased when the power supply to the memory circuit is interrupted during battery replacement, etc. When this occurs, preset the station again.

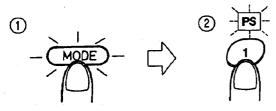
#### Preset tuning

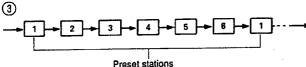
Select the band using the band (B) button.

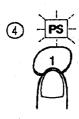
 Press the required preset station buttons (No.1 - No.6).

### PRESET SCAN BUTTON TUNING

This makes it possible to automatically scan preset FM and AM (MW/LW) stations







- Press the MODE button to light its red indicator.
- While the red indicator is lit, press the PS button.
- ③ Scanning is performed in the order of preset stations in each frequency band (FM1, FM2, FM3 and AM). Each preset station is heard for approx. 5 seconds.
- When the required station is heard and its frequency is blinking, press the PS button again.

### STRONG-STATION SEQUENTIAL MEMORY (SSM)

This function searches for FM and AM (MW/LW) stations broadcasting strong signals; the 6 strongest stations are held in memory in the order of increasing frequency and can be recalled with the preset buttons 1 – 6. (Procedure)

① When the MODE button's red indicator goes out, press the SSM buttons (♥,♠) for more than 3 seconds. ② The 6 strongest signals in the band to which you are listening (FM1, FM2, FM3 and AM (MW/LW)) will be searched and selected automatically. These 6 stations are preset in the preset buttons (1 - 6) in the order of increasing frequency. (During this operation "--" lights in the display.)

The receiver then tunes to the broadcast stored in preset button "1" automatically.

#### Mata:

Previously preset stations are cancelled automatically when SSM is used.

#### MONO BUTTON

When listening to FM, set the MO button to stereo or mono after the MODE button has been pressed and its red indicator is lit.

Note:

Set to mono when a stereo FM broadcast is too noisy and cannot be heard satisfactorily.

### RECEIVING TRAFFIC INFORMATION BROADCASTS (G/GE version only)

- 1. Select the FM1, FM2 or FM3 band using the Band (B) button.
- Press the SK/DK button for more than 1 second before operation. The SK/DK indicator lights.
- Perform Seek Tuning to search for a station broadcasting traffic information. When such a station is received, the SK/DK indicator will light and the broadcast can be heard.
- 4. As long as the radio is set to receive the traffic information station, even if you are listening to a cassette tape or CD, when traffic information is broadcast, it will automatically be heard, and once the broadcast is over, sound from the cassette or CD will automatically be restored. Even when listening to a cassette tape or CD, if the signal from the current traffic information station becomes weak, a stronger traffic information station is

### Notes:

 You can only operate the SK/DK button in the FM mode.

searched automatically.

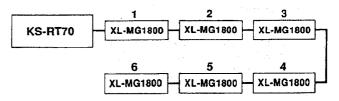
 When listening to an FM broadcast, if the tuner is not set to a traffic information station approx. 5 seconds later an alarm tone will be heard; if the reception is poor, the alarm will occur after 30 seconds. In such a case, perform Seek Tuning or press the SK/DK button for more than 1 second.

### CD Automatic Changer Operation

#### **PRECAUTIONS**

- This unit is for the control of JVC Compact Disc Automatic Changers which must be purchased separately (applicable models; XL-MK500/ MG700RF/MG1800).
- For use, refer to the instructions of the CD automatic changer.
- When a cassette tape is loaded while listening to a CD, CD playback is automatically switched to cassette playback.
- When there is no disc in the disc magazine of the CD automatic changer or when the disc is inserted into the tray upside down, the "---" will be shown in the KS-RT70 display. In such a case, remove the disc magazine from the CD changer and set the discs correctly.
- When "O E1 O E7" is shown in the display
  of the KS-RT70, press the RESET button of
  the CD changer. When "O E8" is shown,
  confirm that the connections have been
  made securely.
  - The "O" shows the number of the CD changers connected to the KS-RT70.

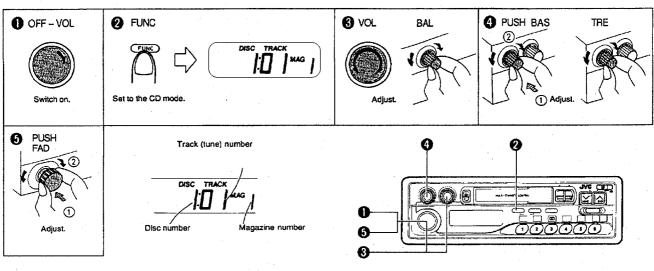
Example: When 6 XL-MG1800 changers are connected.



("5E1" means that the 5th CD changer is the cause of the trouble.)

### PLAYING COMPACT DISCS

To play all tunes Operate in the order shown.



 After the last tune of the first disc has been played, the disc on the next tray automatically starts from its beginning. If there is no disc on the tray, the display shows the "- - -" and the following disc is played.

#### MAGAZINE SELECTION

Magazine select button

Press the magazine select button (+M/-M) after the MODE button has been pressed and its red indicator is lit to select the required magazine.

(Example: to select the 3rd magazine with the XL-MG1800 changer connected.)

 When selecting the 10th or higher magazine with four or more XL-MG1800 changers connected, the unit's digit of the magazine number blinks. Light

For example, when the 18th magazine is being selected, the "8" blinks.

#### DISC SELECTION

Direct Disc Selection

Use the disc No. buttons (1-6) to select the required disc from the magazine, the number of which is shown in the display.

Press the disc No. button (1-6) corresponding to the No. of the required disc. CD play starts when the disc No. and track No. indicator light.

Example: (to designate Disc 5)



#### SKIP PLAYBACK

 During playback, when skipping to the beginning of the next tune or the tune being played back or the previous tune, the beginning of the tune is easily located and the playback starts from there.

To listen to the next tune ...

Press the button once to skip to the beginning of the next tune.

To listen to the previous tune ...

Press the ◄ button to skip to the beginning

of the tune being played back and press again to skip to the previous tune.



### Digital Clock Display

Selectable between the clock display on or off.

When listening to a tape (or CD), each time the CLK button is pressed, the time mode or tape (or CD) mode can be selected.

When the unit is in the tuner mode, press the CLK button for more than 2 seconds to select the time mode.

When the tuner or CD is operated in the time mode, the display will switch to tuner or CD mode, then, after a brief period will return to the time mode.

 When the magazine select, disc select and skip operations are performed in sequence, the required tune from the required disc can be selected.

### SEARCH PLAYBACK (to locate the required position on the disc)

 The required position can be located using fast-foward or reverse search during playback.

 Hold down the button and the search playback starts slowly and then gradually

increases speed.

 Since a small sound (about one quarter of playback level) can be audible in both modes, release the button when the required position is located while monitoring the sound.

Keep pressing for the fast-reverse search



Keep pressing for the fast-forward search

### RANDOM PLAYBACK

Each time the RND button is pressed after the MODE button has been pressed and its red indicator is lit, the mode is changed from Random 1 mode (the RND indicator lights) to Random 2 mode (the RND indicator blinks) to clear mode, in this order.

#### Random 1:

Plays all tunes on the disc currently being played back once, in random order, then tunes from the subsequent disc in their order on the disc.

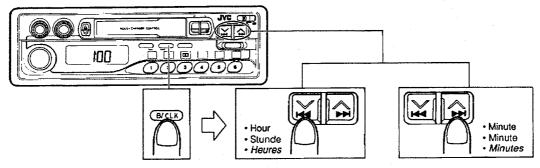
### Random 2:

Randomly selects a disc other than the one currently being played, a tune on this disc is selected at random, and it is played.

When listening to a tape, "TAPE" or time mode is shown on the display.

• To adjust the time

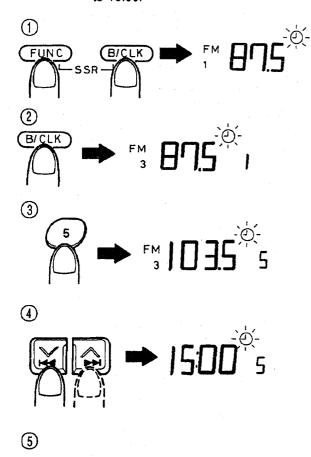
When the display is in time mode, while keeping the CLK button pressed, press the Hour adjustment button (>) to adjust the "hours", and the Minute adjustment button (^) to adjust the "minutes."



### Special-Preset Station Reserver (SSR)

The SSR (Special-preset Station Reserve) automatically tunes in to any FM or AM preset program once a day, at a programmed time from any of the operating modes; tuner, tape, or CD. This function guarantees that you will not miss important information such as weather reports or traffic information, etc.

- Set current time before using the SSR. (See page 36.)
- The station must be preset before using the SSR. (See page 24.)
- Example: When setting the FM station which has been preset to the preset button (5) of the FM3 band to 15:00.



(Procedure)

- While pressing the FUNC button, press the B/CLK button for more than 2 seconds to preset a program. (" 2" indicator blinks.)
  - Perform the next operation while the "②" indicator blinks.)
- Select the required band (i.e. FM3 in the example) using the band (B) button.
- 3 Select the required station (i.e. 5) which has been preset using the preset station button.
- Set the required time (i.e. 15:00) using the time adjustment buttons.
- Tress the B/CLK button for more than 2 seconds while pressing the FUNC button, to preset the SSR. (Presetting is completed when the preset band, frequency and time indicators blink and "(4)" indicator lights.)
- If the " (-) " indicator stops blinking during presetting, perform the operation again from procedure (1).
- While the FUNC button is pressed, press the B/CLK button once to check the preset program.
- Press the B/CLK button for more than 2 seconds while pressing the FUNC button to cancel the SSR mode. (The " — " indicator is goes out.)

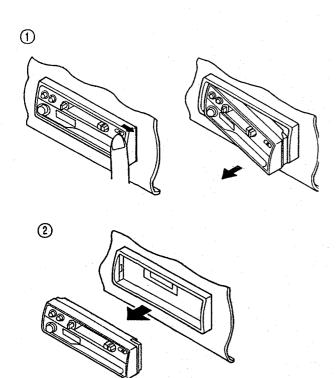
### Notes:

- Once the SSR has been set, the start time and broadcast station are stored in the microprocessor. When changing the start time and/or broadcast station, perform procedures ① to ③ again.
- After setting the SSR, if a preset station is changed, the renewed station is stored in the program station of the SSR.

### ■ To Detach The Control Panel

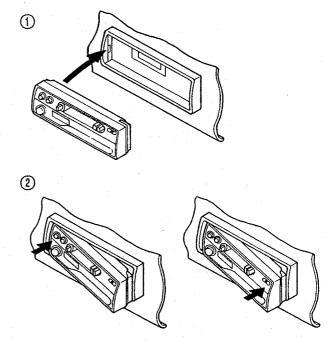
and the second

- (1) Slide the control panel release ( ) switch in the direction of arrow to detach the control panel.
- Pull the control panel out of the main unit as shown in the figure below.
   After detaching the control panel, put it in the case provided for protection.



### **■** To Attach The Control Panel

- Align the left side of the control panel to the left side of the holder.
- 2) Press the left side of the control panel first, then press the right side to set correctly.



### Note:

Be careful not to damage the connector terminals when attaching/detaching the control panel or while the control panel is detached.

### **1** Location of Main Parts

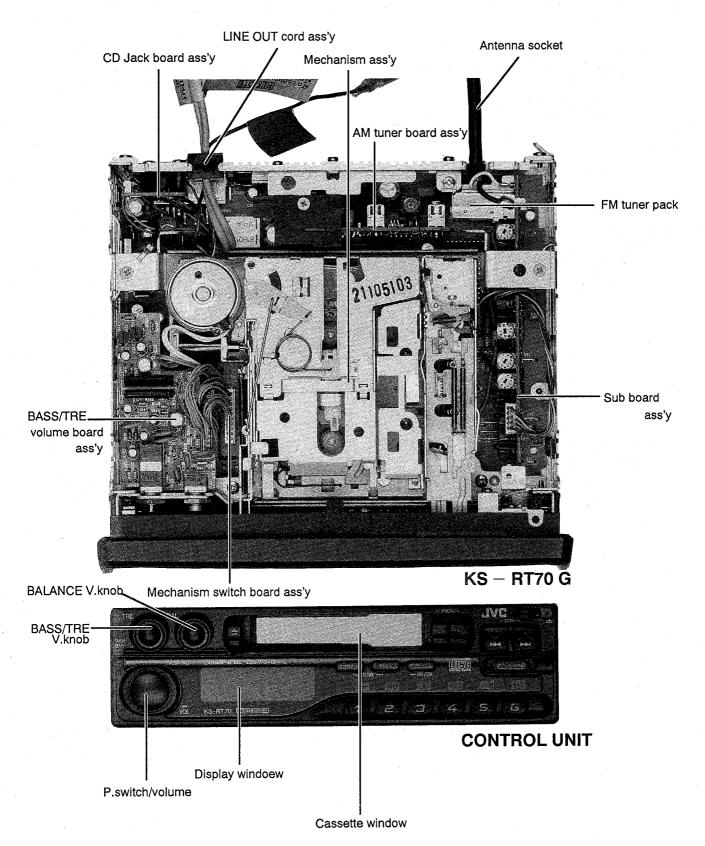


Fig 1 - 1

### 2 Removal of Main parts

### **■** Enclosure section

### ◆ Top cover(see Fig.2-1)

- 1. Remove the two screws ① retaining the top cover from backward.
- 2. Remove the four claws A on the right and left side ritaining the top cover.

### ◆ Bottom cover(see Fig.2-1)

- Remove the one screw ② retaing the bottom cover from backward.
- 2. Remove the four claws B on the right and left side ritaining the bottom cover.

### ◆ Cotrol unit(see Fig.2-2)

1. Remove the release switch knob by sliding to the right side.

### ♦ nose piece ass'y(see Fig.2-1)

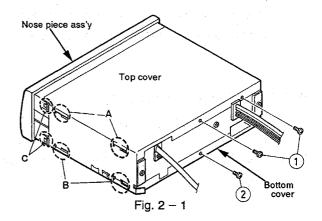
- 1. Remove the four claws C on the right and left side.
- ★ The nose piece ass'y is connected to the main p.c.board by a connector under the 『PROG』 button on the right side of the mechanism. Dismount the nose piece ass'y by pulling it in straight direction.

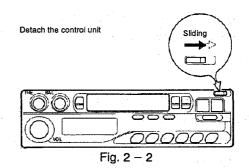
### ◆ Mechanism ass'y(see Fig.2-3)

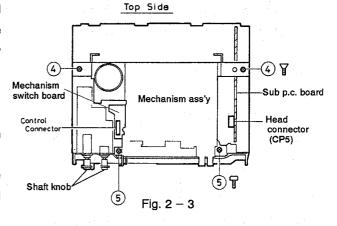
- 1.Remove the four screws (and (5) retaining the mechanism ass'y.
- Disconnect two connectors, namely, the head wire connector(CP5) from the sub p.c. board ass'y and control connector from the mechanism switch board ass'y
- 3. Pull out the mechanism ass'y toward the top side.

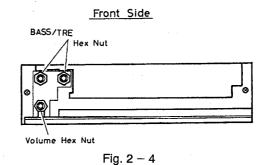
### ♦ Volume board ass'y(See Fig. 2-3 and Fig. 2-4)

- 1. Remove the mechanism ass'y
- 2. Remove the shaft knobs(knob joint). (see Fig2 3)
- 3. Remove the nuts retaining the BASS/TRE volume and pull out it backward(see Fig.2 4).









### ♦ AM p. c. board ass'y(see Fig. 2-5)

- 1. Remove the one screw 6 retaining the board holder.
- 2. Pull out the AM p. c. board ass'y toward thr top side.

### ♦ SUB p. c. board ass'y(see Fig. 2-6)

- 1. Remove the one screw ⑦ retaining the FM antenna cord ass'y.
- 2. Remove the one screw ® retaining the FM tuner pack bracket.



1. Remove the two screws (9) retaining the CD jack ass'y.

### ♦ Front bracket(see Fig. 2-7)

- 1. Remove the two screws (1) retaining the front bracket.
- 2. Remove the shaft knob(knob joint)(see Fig. 2 3).
- 3. Remove the nut retaing the volume.
- ★ Under these condition, it will be possible to change the prarts on the main p. c. board ass'y.

### ♦ Main board ass'y

- 1. Remove the two screws retaining the front power IC and I/O connector(11pin).
- 2. Remove the one screw retaining the main board ass'y from bottom side and unsolder the main board to chassis.

### ◆ Control unit(see Fig. 2-8)

1. Remove the seven screws ① retaining the cover.

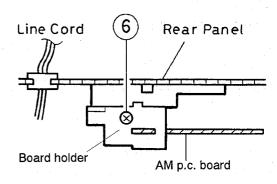
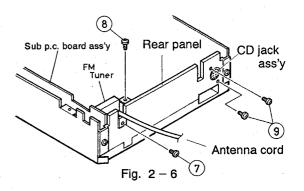


Fig. 2 - 5



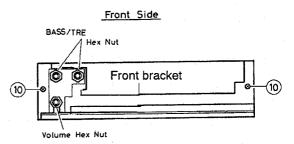


Fig. 2 - 7

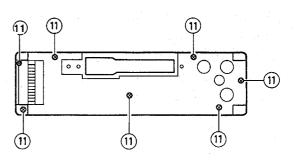


Fig. 2 – 8

### Mechanism Section

### ♦ Head Removal(See Fig. 2-9 and 2-10)

- 1. Remove screw ① retaining the FR lever assembly.
- 2. Left the FR lever assembly up in the direction of the arrow and remove the FR lever assembly from the chassis slots(groove).
- 3. Remove the screw ② retaining the head plate.
- 4. Remove two screws 3 retaining the head.
- When replacing the head make sure to adjust screws(A~D)and perform head angle and height adjustment.

### ◆ Pinch roller assembly(See Fig. 2-10)

- 1. Remove the nylon washers retaining the left and right pinch rollers.
- 2. Pull out the pinch roller.



Remove two screws(5)retaining the motor assembly.

This operation is facilitated by leaving the belt hooked on to one of the chassis protrusions.



Thread the belt as indicated in the figure when replacing the belt

Take care to avoid contact with grease or oil when replacing the belt.

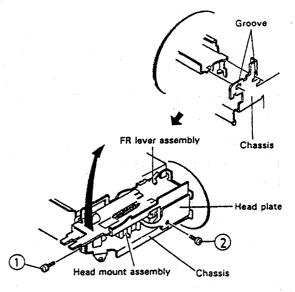


Fig. 2 - 9

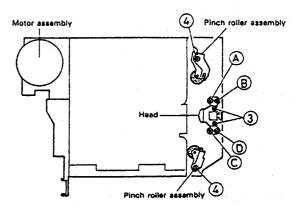
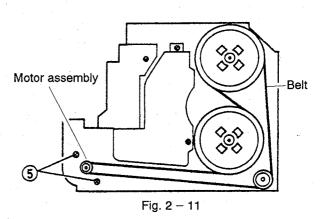


Fig. 2 - 10



#### 3 Main Adjustment

### Equipment and measuring instruments used for adjustment

- Electronic voltmetor
- Audio frequency oscillator (range:50~20kHz and output 0 dB with impedance of
- lacktriangle Attenuator(impedance;600  $\Omega$ )
- Frequebcy counter
- AM Standard signal generator
- FM Standard signal generator
- Wow flutter mater
- Torqu testing cassette gauge CTG - N (mechanical adjusting)

TW - 2111A (FWD play)

TW - 2121A (REV play)

Standard tape

VTT704(head azimuth adj.)

VTT712(tape speed,wow&flutter adj.)

VTT724(reference level)

VTT736(playback frequency response)

VTT721 (output level)

SCC - 1659 (mirrer tape)

MTT - 942SP (azimuth)

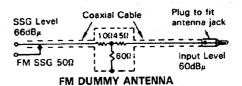
### ■ Condition for measurement

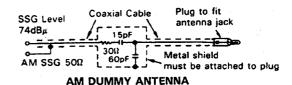
● Power Supply · · · · · DC14.4V (Reduced Voltage:10.5V)

(Tow speaker connection)

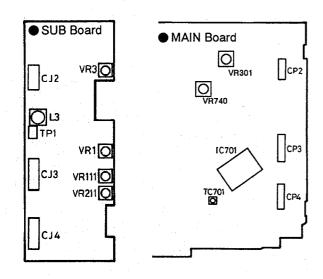
- BASS/TRE, FADER · · · · · · · Center
- Main volume · · · · · · Position with an output level of 1.4V during VTT724 playback
- Tuner section
- FM;400Hz, 22.5kHz deviation
- FM STEREO ;1kHz, 67.5kHz deviation, pilotsignal 7.5kHz
- AM;400Hz, 30% modulation
- Output impedance;50 Ω

### ■ Dummy antenna





### **■** Location of Adjustment

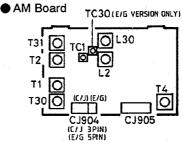


### Preset memory Initialization

		Pre	set Men	nory		
Band	M1	M2	Мз	M4	M5	M6
FM(MHz)	87.5	89.9	97.9	105.9	108	87.5
AM(kHz)	144	153	522	603	1404	1620

Manual Tuning Up/Down Frequency

FM ;50kHz Step AM ;9kHz Step



### ■ Tape section adjustment

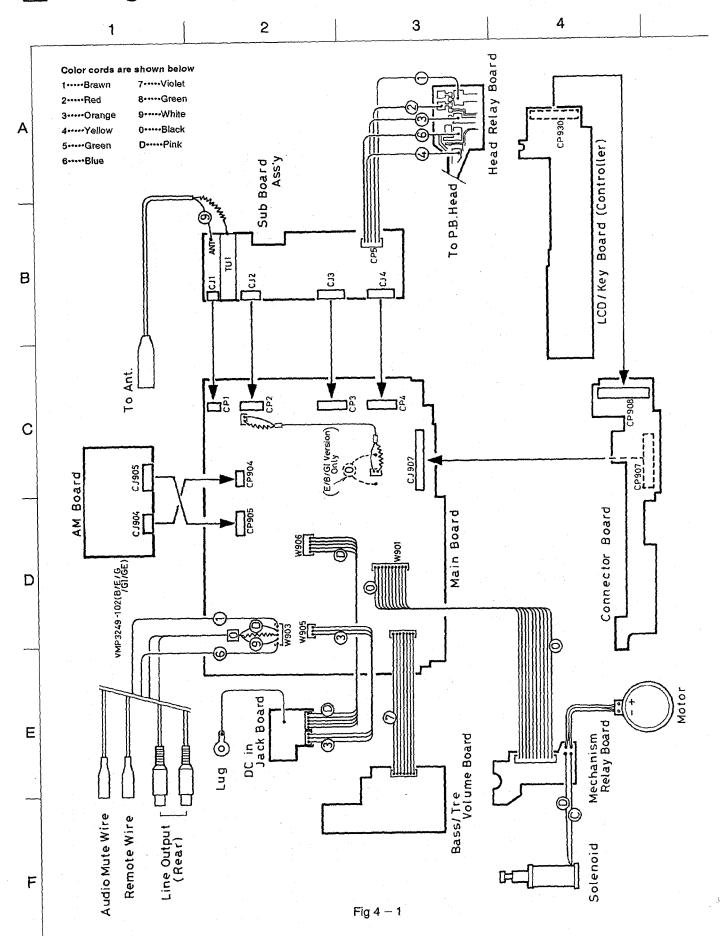
Item	Conditions	Adjustment and Confirmation methods	S.Values	Adjust
1. Head	Test tape:	★ In case the head and its height have been		<u> </u>
azimuth	SCC - 1659	changed, it will be necessary to adjust the		
adjustment		height of the head.		<del></del>
	MTT942SP(10kHz)	1. Adjustment of the height of head		A Line
	,	1)When the mirror tape SCC – 1659(2-line		
		tape) is travelling in the FWD direction, adjust the screws A and B so that the line A	Head shield	
		is located the center of the shield plate		is at low position
		between the head channels.	during F	WD.
		2)When the mirror tape SCC - 1659(2-line		4.
	•	tape) is travelling in the REV direction,		
		adjust the screws C and D so that the line B		B Line
	ŗ	is located the center of the shield plate		
		between the head channels.	Head shield	
	ļ.,	2. Head azimuth		d is at high position
	hr .	1)Adjust the screw B so that the output level	during R	EV.
		becomes maximum(L-R difference level to		
		be within 2 dB) and the phase difference	Output	screw - D
		becomes minimum (less than 90°) when	level:	۸ ۸۸
		MTT942SP is travelling in the FWD direction.	Maximum	A 8 8 D
		2)Adjust the screw C so that the output level		
		become maximum (L-R difference level to		
		be within 2-dB) and the phase difference		В—& В—С
		become minimum (less than 90°) when	Output	
		MTT942SP is travelling in the REV	level:	screw – C
	4	direction.	Maximum	
		3)By repeating the avove adjustment steps 1)		
		and 2),make sure that the output level and	( 0° )	nase (90°)
		phase difference are as specifed	'  //	
		respectively .		
		4)There is no need to preform bonding after		
	·	adjustment.		T :
2. Tape	Test tape:VTT712	1.Check to see if the reading of the F.	Tape	Built-in volume
speed and	(3kHz)	counter/wow flutter meter is within	speed:	resistor
wow flutter		3015~3045 (FWD/REV), and less than	3015	
confirmantion		0.35% (JIS RMS)	~3045Hz	•
		2. In case of out of specefication, adjust the	Wow	
		motor with a built-in volume resistor.	flutter:less	
			than0.35%	
·				
3.Playback	Test tape:VTT724	1. Play test tape VTT724, and set the	Speaker	
frequency	(1kHz)	volume position at 1.4 V	out	
response	VTT736	2. Play test tape VTT736 and confirm	1kHz/125Hz	·
confirmation	(125Hz/1kHz/8kHz)	1kHz/8kHz: 0 ± 3dB,	:0 ± 3dB	
	(120112/15/12/ON12)	$1 \text{kHz/125Hz: } 0 \pm 3 \text{dB.}$	1kHz/8kHz	
٠.		3. When 8 kHz is out of specification, it will	:0 ± 3dB	
		be nesessary to read adjust the azimuth	.0 _ 000	
L		20 hosessary to road adjust the azimuth		

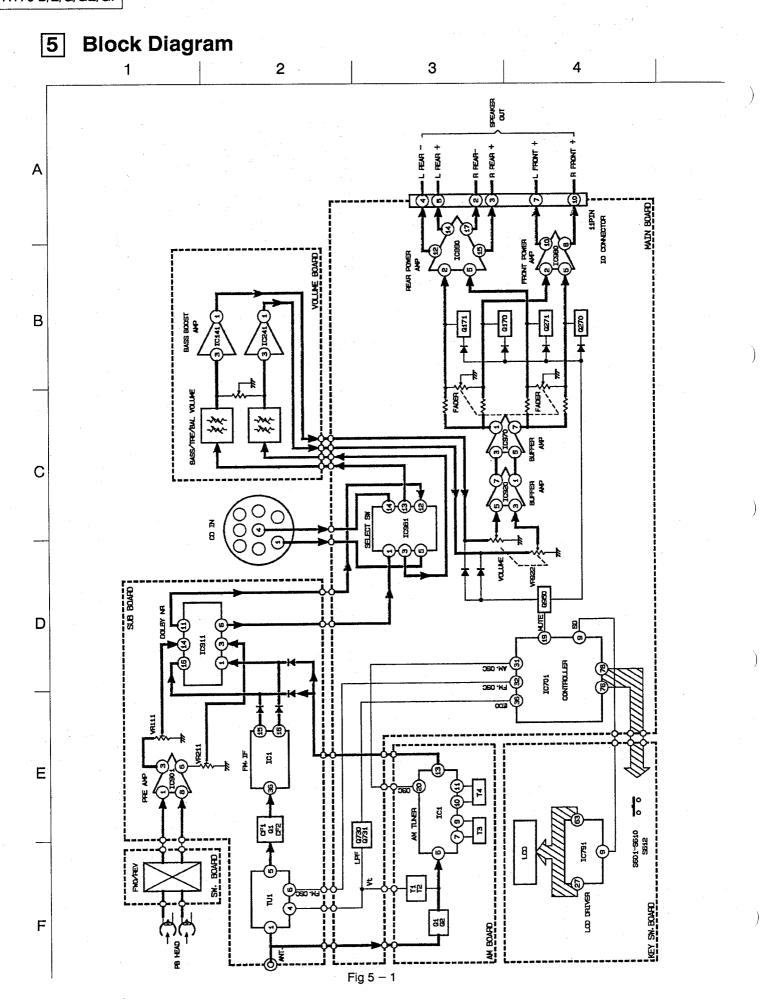
Item	Conditions	Adjustment and Confirmation methods	S.Values	Adjust
4.Maximum output power confirmation	·	<ol> <li>Confirm the rear output be more than 9V((20W).</li> <li>Comfirm the front output be more than 5.3V(7W)</li> <li>Confirm that consumption current at above condition to be less than 5A.</li> <li>Sound leakage should not occur at volume minimum.</li> <li>Oscillation should not occur at BASS/TRE at maximum.</li> </ol>	Output level:more than 20W(9V) and 7W(5.3V) Consumption current :less than 5A	
5. DOLBY NR level adj.	Test tape:VTT724 (1kHz) Test point : TP911	<ol> <li>Playback the test tape VTT724,Adjust         VR111/VT211 so that the output level at         terminal TP911 is 318mV.</li> <li>Playback the non – signal recorded portion         and turn on and off the DOLBY switch         repeatedly while making sure that level         difference at TP911 is 8.5dB more.</li> </ol>	DOLBY B 318mV	Lch :VR111 Rch :VR211

### ■ Tuner section adjustment

Item	Conditions	Adjustment and Confirmation methods	S.Values	Adjust
1.Radio/Tape level difference	AM 1000 kHz, 1kHz, 30% modulation, 74dB $\mu$	Against VTT724, the output difference level to be within $-$ 7 to $\pm$ 3 dB	within -7 to ±3 dB	
2.FM 0V adjustment	Test point: TP1 FM 97.9MHz, 66 dB non modulation	Adjust L50 so that the TP1 DC voltage level become 0 V when 97.9 MHz is indicated.	0 ± 10mV	L50
3.Clock frequency adjustment	Test point: TP4 AM 1710 kHz F Counter	When indication AM 1710 kHz, adjust TC701 so that the TP4 reading becomes 2,160 ± 0.005 kHz.  Note: 1.Clock adjustment to be done after aligning tuner (To get higher accuracy).  2.High impedance can to be use.	2,160 ± 0.005 kHz	TC701
4.FM seek stop adjustment	Test point:TP701 FM97.9mHz,30dB $\mu$ (non $-$ modulated)	Adust VR740 so that SD is set exactly from 0V to 5V with the SSG 97.9mHz 30dB $\mu$ V.	0V to 5V	VR740
5.Separation adjustment	TP:AFout FM97.9MHz,66dB $\mu$ (1kHz,67.5kHz Dev.) 7.5kHzDev.)	<ol> <li>With signal of 97.9MHz,66dB μ supplied from the signal generator to L or R channel.</li> <li>Adjust VR1 to minimize leak of a channel's output to other channel.</li> </ol>	minimum	VR1
6.BLEND adjustment	TP:AFout FM97.9MHz,52dB $\mu$ (1kHz,67.5kHz Dev) 7.5kHz	1. With signal of 97.9MHz,66dB $\mu$ supplied from the signal generator to L or R channel. 2.Adjust VR3 so that speaker output level of the other channel becomes 20dB and signal levels of the two channels are balanced.	20dB	VR3
7.SK Filter adjustment	FM:97.9MHz SK signal modulation 66dB μ V (set modulation to 10% less)	While receiving SK signal, adjust VR301 so that the TP301 output level become maximum.  OSC SG KS-RT70 E.METER  F.COUNTER OCC.  57kHz	Maximum	VR301W

### 4 Wiring Connections





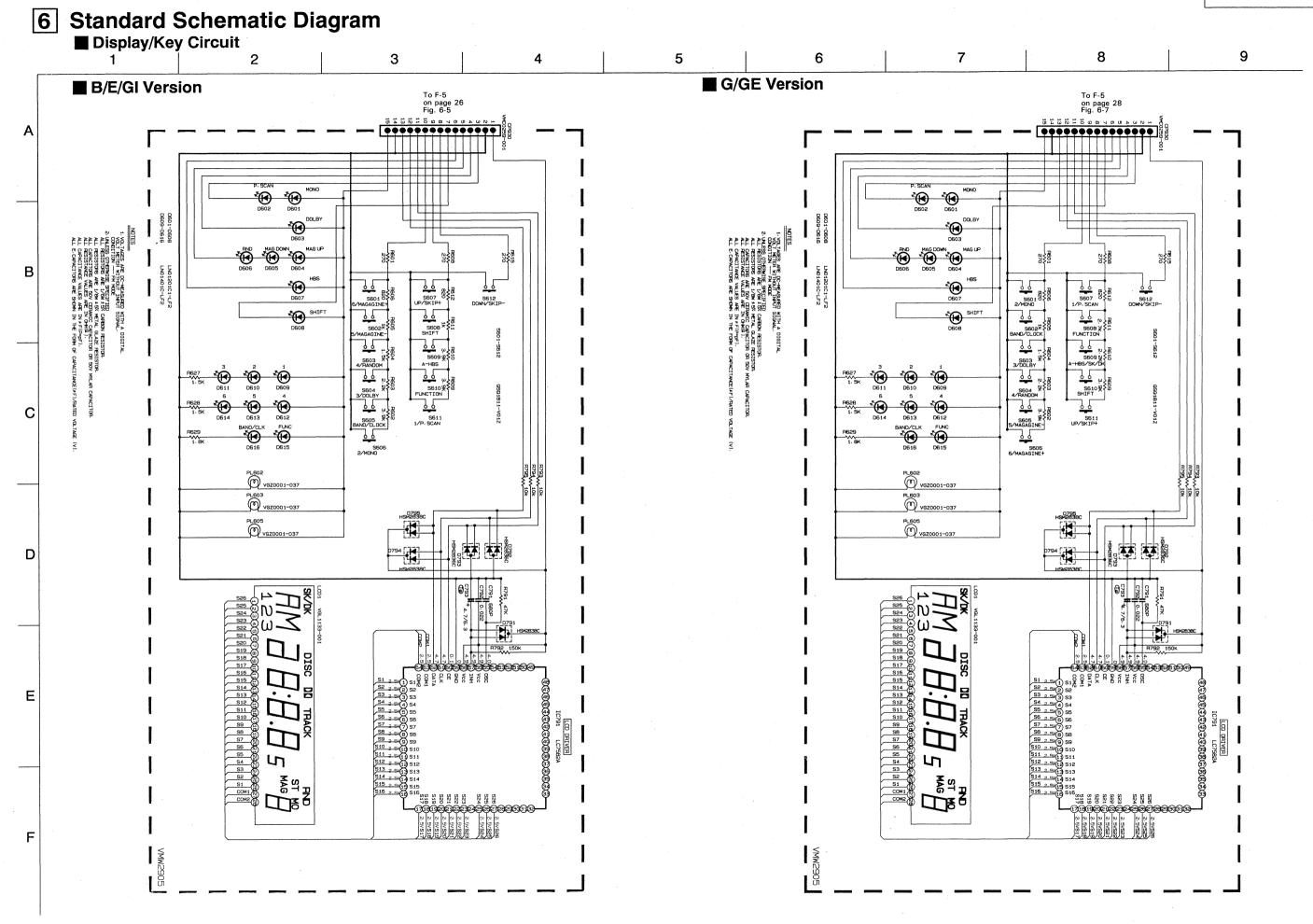
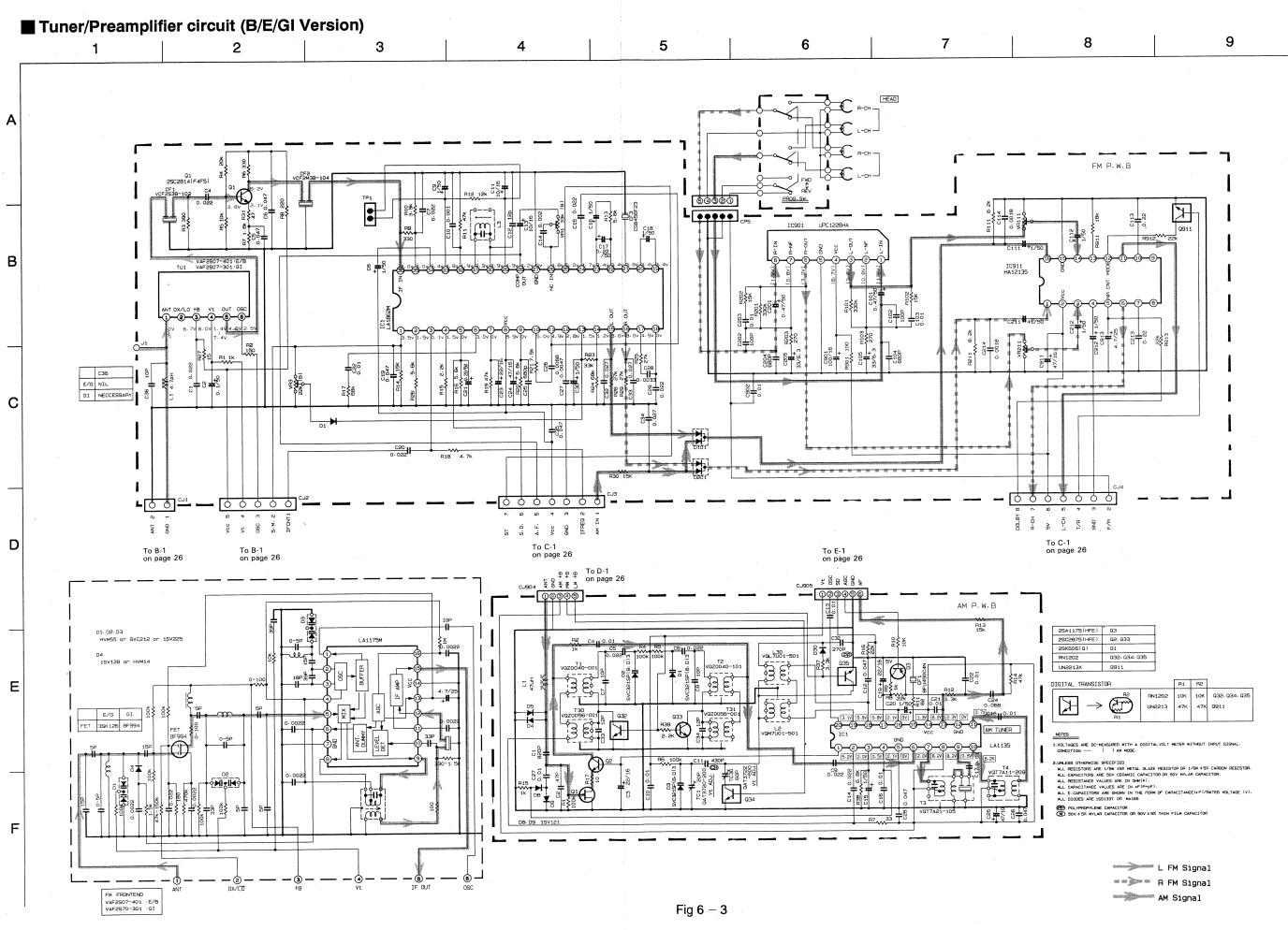
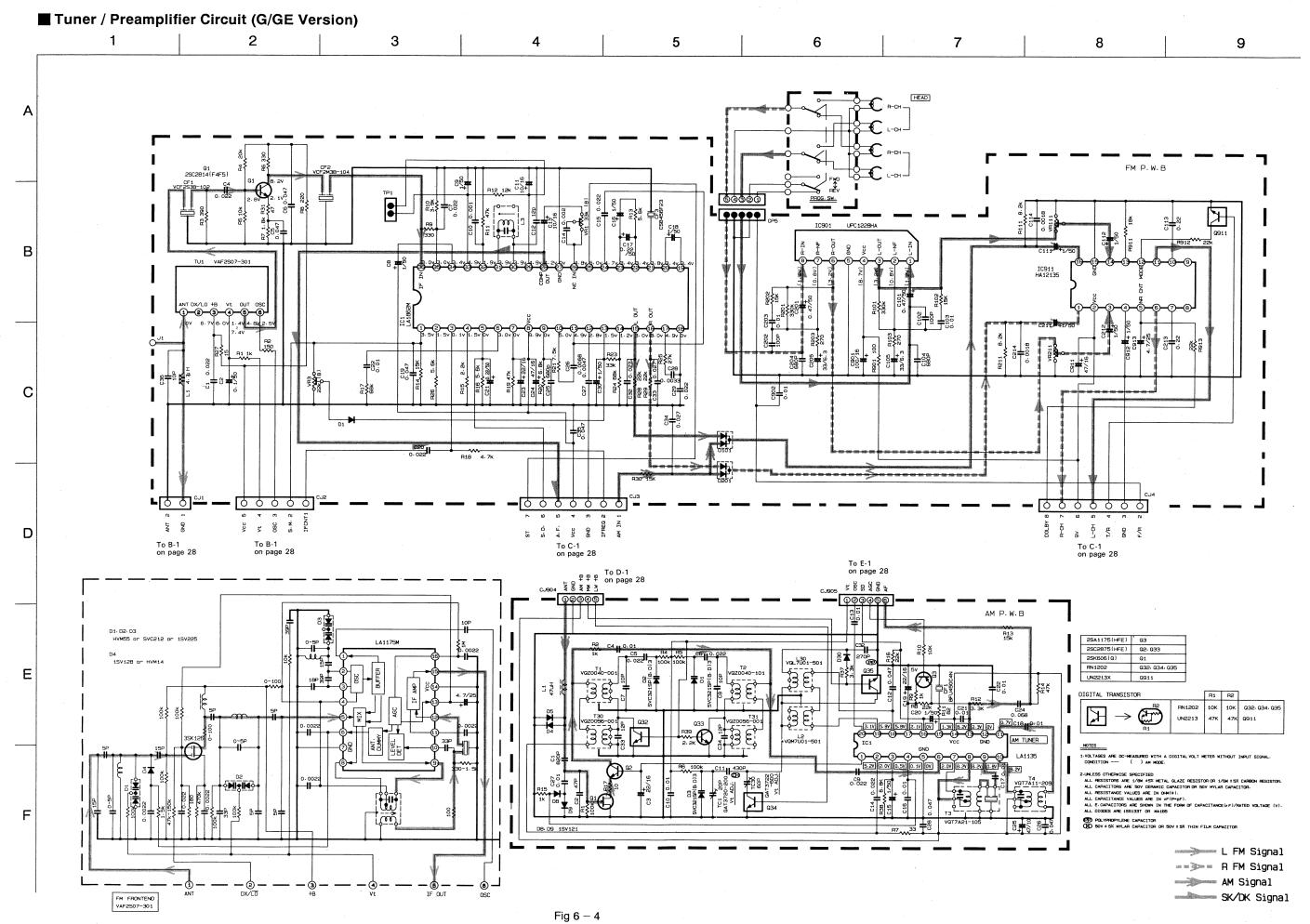
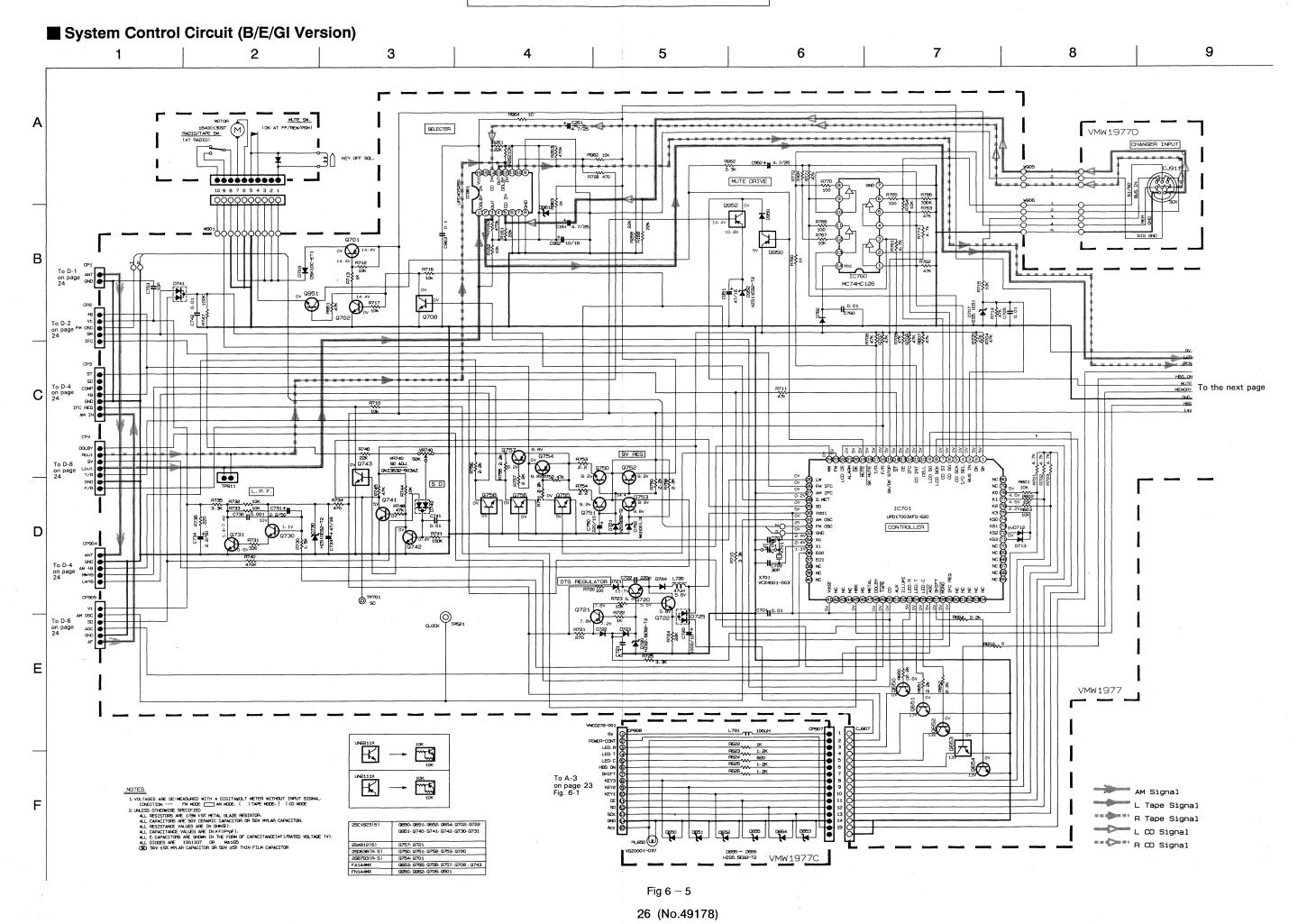


Fig 6 - 1







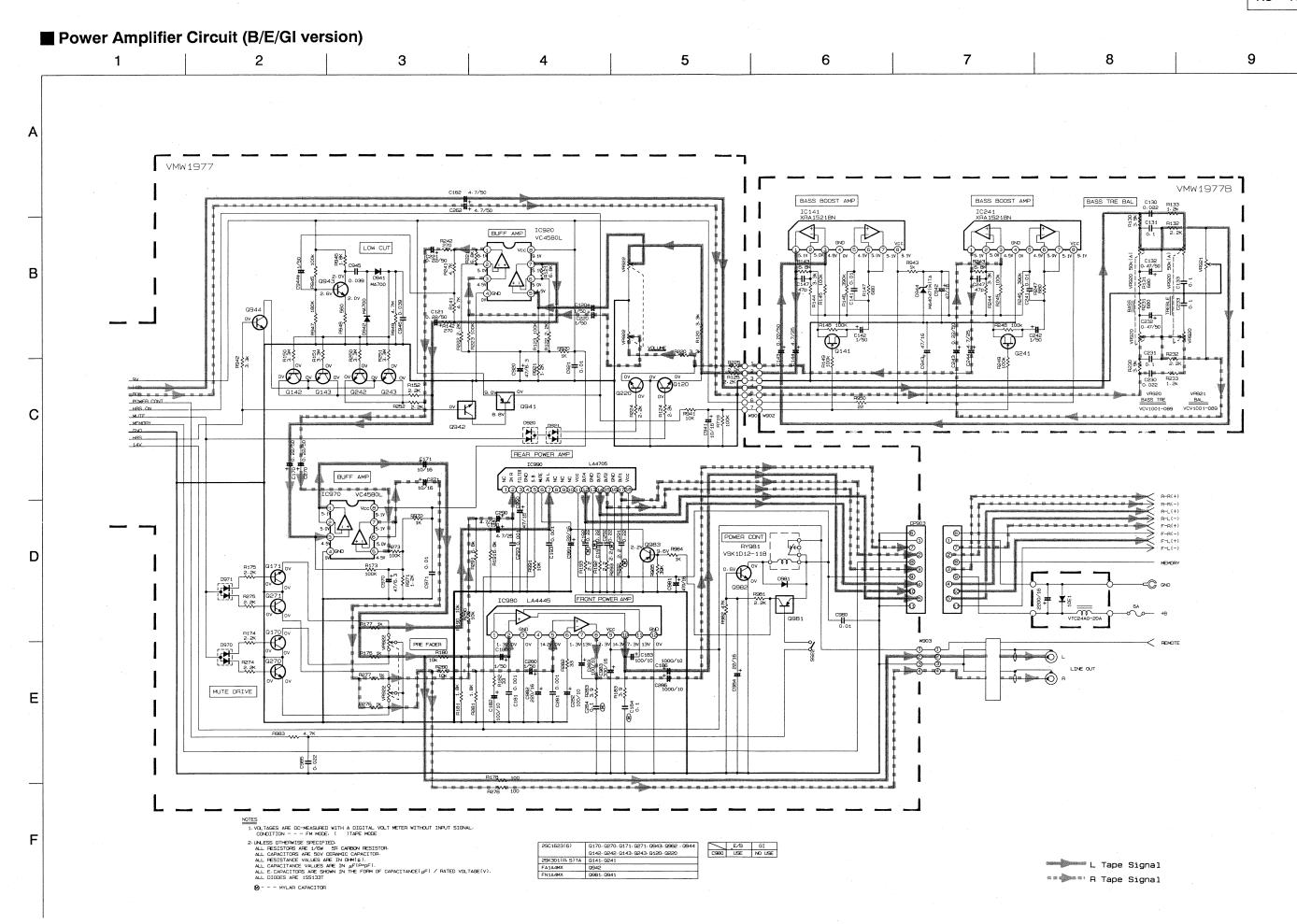
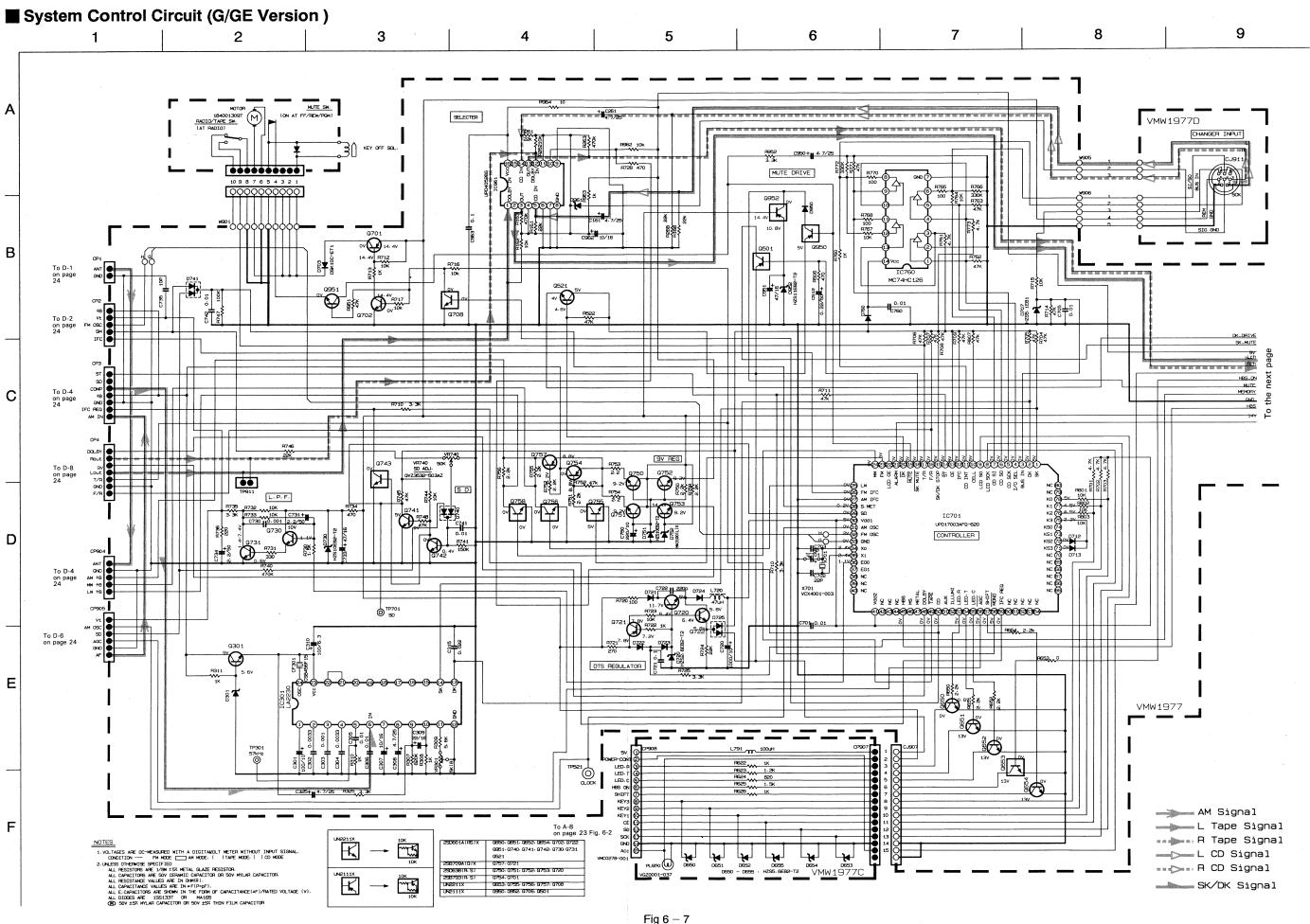
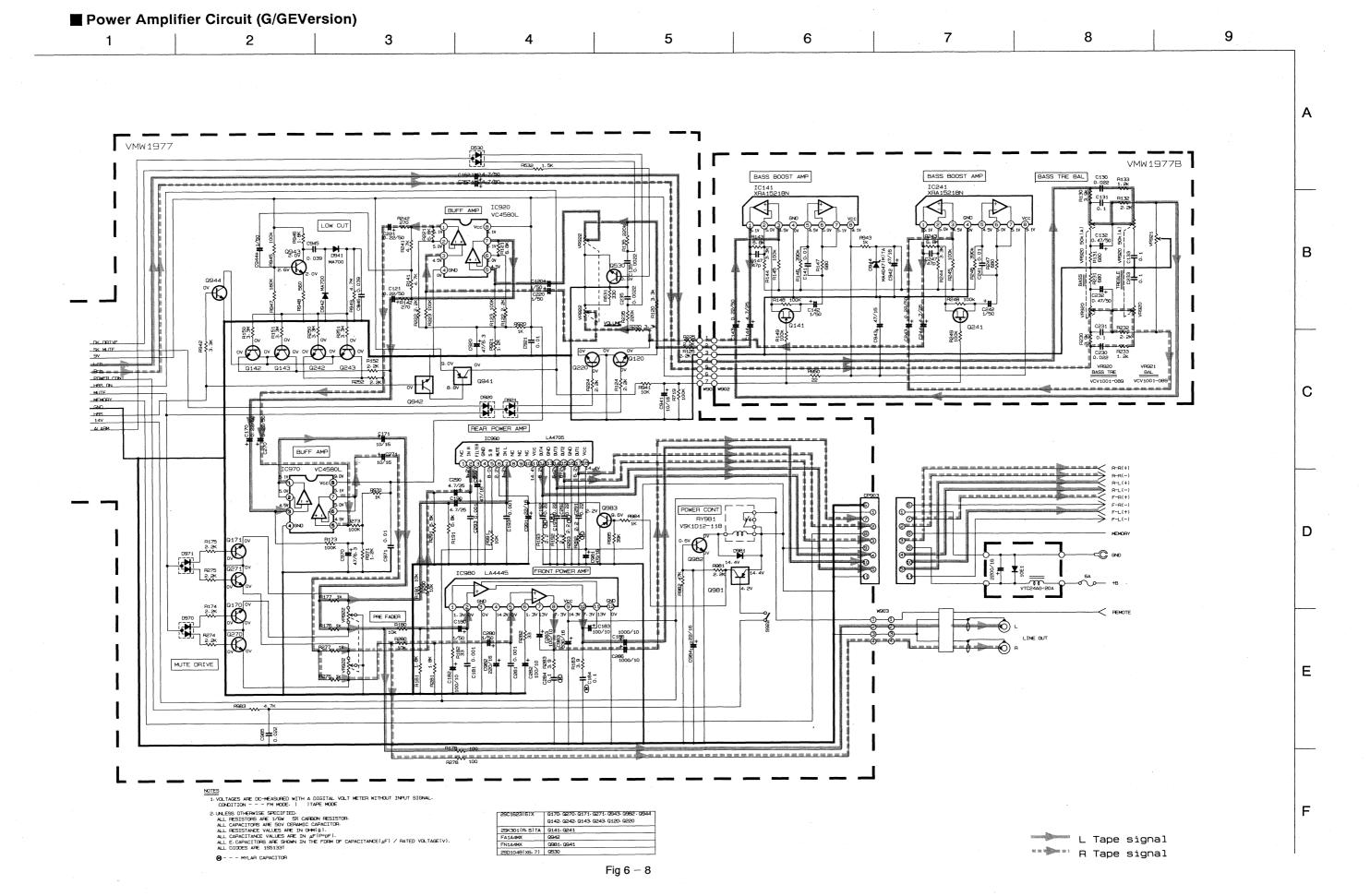
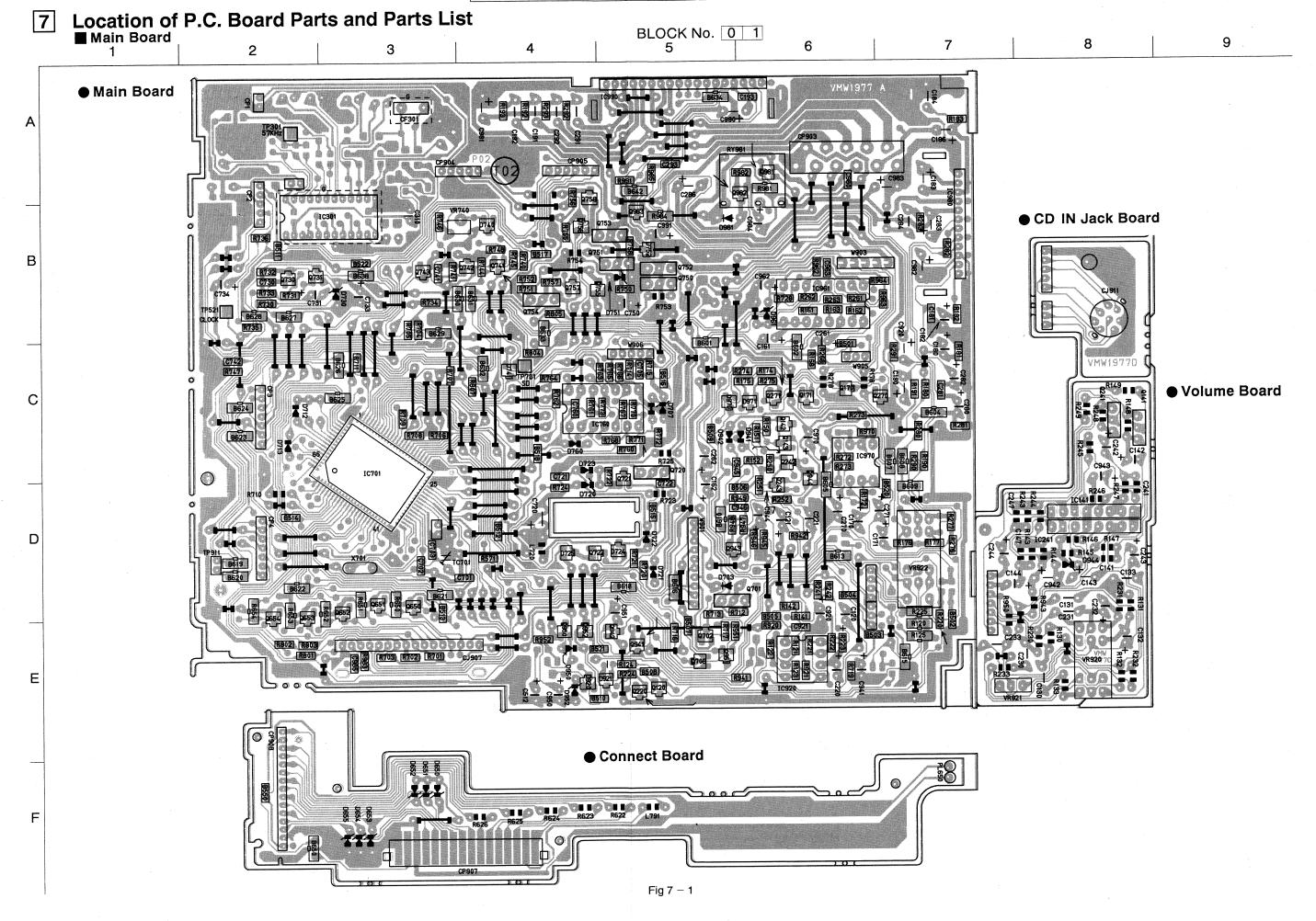


Fig 6 - 6



28 (No.49178)





### ● Main board parts list

Mair	Main board parts list	irts list	BLOCK NO. DE					BLOCK NO. 011	
REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	A RE	EF. PARTS NO.	PARTS NAME	REMARKS	SUFFIX
S SU	NRSA02J-ORONY	O	/101/	G.GE.B.E.GI	1	303 NCB21HK-102A	AY C CAPACITOR	1000PF 10% 50V	6.6E
120	GER41HM-105VM	E CAPACITOR	20 K				ب	10%	6.6E
C 121 6	GERTING-ZZTVS	CAPACITOR	. AZEF ZOZ >0V		S 0		ه د	10%	6,6E
131	GCC11EM-104V	C CAPACITOR	, 'V			300 NCBZIRK-10341	A F CAPACITOR	10MF 20% 14V	6.0 F
132	QEK41HM-474	E CAPACITOR	20%		1	<del> </del>	ш	4.7MF 20% 25V	6.6E
133	QCC11EM-104V		20%				w	22MF 20% 16V	G.6E
	QCY41HK-222	C.CAPACITOR		G, GE			ш	100MF 20% 6.3V	6,6E
145	GEK41HM-105		1.0MF 20% 50V		ט כ	325 DFR41FM-475VM	AN F CAPACITOR	4.7MF 20% 25V	1 5 C
	QEK41HM-224	1 .	20%				, <u></u>	.22MF 20% 50V	GVGE
	QEK41EM-475		4.7MF 20% 25V					.010MF 10% 50V	
<u> </u>	CS11HJ-470		0				ပ (	22PF +50:-10% 1	-
167	GER41EM-4/3VM GFRF1HM-4757M	E CAPACITOR	4-7MF 20% 50V		) (	703 NCT21CH-5R0AY 705 NCB21HK-104AV		5.0PF +50:-10%	
	GER41HM-224VS	1	20%		1		ы	201 1010	
	QER41CM-106M		7		ر د		ပ		
C 180	GER41HM-105VM	E CAPACITOR	1.0MF 20% 50V				، ن	220PF 5% 50V	
	GEKELAM-1072N		7 7 7 7		٠,٠	730 NCB21HK-102AY 731 0FR41HM-225	AY C CAPACITUR	1000FF 10% 50V	
_	GETCLAM-107ZN	E CAPACITOR	1		1		ш	47MF 20% 16V	
	QFV41HJ-104	ш.	.10MF 5% 50V		2	734 QER41HM-225	E CAPACITOR	2.2MF 20% 50V	
	VCE0040-001	E CAPACITOR	6				. ن	10PF 5% 50V	
100	GE1C1EM-473	TE CAPACITUR	22ME NY NOV		ر د د	741 NCB21HK-103AY	AY C CAPACITOR	_010MF 10% 50V	
	GFV41HJ-224	CAPACITO	, 50 5 50 5 50 5 50		-	750 GEDE1AM-2277M	<u>بر</u>	220ME 20% 10V	
	NCB21HK-102AY	ပ	1000PF 10% 50V				ب ب	-010MF 10% 50V	
	QER41HM-105VM		20% 5				ш	47MF 20% 6.3V	
	GER41HM-224VS			******	ပ ပ		ပ	.010MF 10% 50V	
C 230 @	QCC11EM-223V	CAPACITO	202		<u>د</u>		ш	10MF 20% 16V	
	QCC11EM-104V	C CAPACITOR	.10MF 20% 25V		٠, ١		ш	47MF 20% 16V	
	GCC11EM-104V	C CAPACITOR	20%		. c	945 WEK41CM-4/6 947 GEP41HM-105VM	UM F CAPACITOR	4 / MF 20% 16V	
	NCB21HK-222AY		200PF 10%	6,6E	ب د د		ں ر	.039MF 10% 50V	
	QCVB1CM-103Y	- 1			S		U	.039MF 10% 50V	
	QEK41HM-105	E CAPACITOR	1.0MF 20% 50V		<u>ن</u>	<u> </u>	w	4.7MF 20% 25V	
24,7	EK4118-724 EK71EM-775	E CAPACITOR	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		ن د	951 GER41CM-476M	ш ц	47MF 20% 16V	
247	QCS11HJ-470				ن د	963 NCB21EK-104AY		10MF 10% 25V	
	GER41EM-475VM	- 1	4.7MF 20% 25V		<u>ن</u>		ш	47MF 20% 6.3V	
262	GERFIHM-475ZM		20%				ပ	10%	
27.0	GERGIAM-224VS	E CAPACITUR	10KF 20K 16V			981 GETC1CM-4772N	ZN E CAPACITOR		
280	GER41HM-105VM		٠.				7 N	330MF 20% 16V	
281	NCB21HK-102AY	- 1	242				נט נ	20%1	
282	GEKF1AM-1072N		20%		1	1	ပ	.022MF 10% 50V	
C 283 0	QETC1AM-1072N	E CAPACITOR	100MF 20% 10V				ш	20%	*1
2 0 0	OFTC1AM-1087N	ے د	1000MF 20% 10V			C 991 GER41CM-226VM	VM E CAPACITUR	22MF 20% 16V	i,
230	QETC1EM-475	٠,			3				2010
291	QFV41HJ-224		5% 5		3	911			
292	QFV41HJ-224	TF CAPACITOR	.22MF 5% 50V		ე (	←1 (	CONNECTOR		
	GEKF1AM-107ZN	E CAPACITOR	20%	6, GE	3 8	2 VMC0135-005	CONNECTOR		
302	NCB21HK-332AY		103	6,6E	3	4	CONNECTOR	-	

		_																						_	_	_						_		_		_		_		_		_									_					_						-						
	SUFFIX				-								6,6E	6.6E		10.0	6,6E																															-							-		**											
BLOCK NO. 01	REMARKS							-							-						44		-	-						-						-			سود مو	_																					2	26	6.8K 5% 1/10W	4	e a	e :	2.2K 5% 1/10W	2.2K 5% 1/8W
	PARTS NAME	TRANSISTOR	S	TRANSISTOR	TRANSISTOR	TRANSISTOR	FET	TRANSISTOR	TOANCICION	TOTOTOTO	TRANSTOLOR	TRANSISTOR	TRANSISTOR	TRANSISTOR	TRANSISTOR	201010101	IKANSISIOR	TRANSISTOR	TRANSISTOR	TOANSTELLO	TO LOTONOLI	IKANSISIUK	TRANSISTOR	TRANSTSTOR	TDANSTOTOD	I KANS I SI OR	TRANSISTOR	TRANSISTOR	20102401	LKANSTOLE	TRANSISTOR	TRANSISTOR	TOAMSTSTAD	LO LO TONKE	TRANSISTOR	TRANSISTOR	TRANSISTOR	TO FOR CHANGE	LEANSISION	INANSISION	TRANSISTOR	TRANSTOTOR	TOTOTOTOTO	LAMOISION	TRANSISTOR	TRANSISTOR	TOANSTOR	NO FOR COLOR	KANSISIOR	TRANSISTOR	TRANSISTOR	TRANSISTOR	TRANSISTOR	TOANGLE	TOANGTOTO	TO FOLIOR	KANSISIOK	TRANSISTOR	TRANSISTOR	TRANSISTOR	NO POTO CA		MG RESISTOR				MG RESISTOR	MG RESISTOR
	PARTS NO.	2501623(6)	2501623	2501623(6)	~	2501623(6)	i			_			25C1623(6)	FN1A4MX		200000000000000000000000000000000000000			2501623(6)			LA1A4M			٠.			250638(8,5)				2501623(6)		_	2801623(6)	2501623(6)		_1		_	2SD638(R,S)		_		_	FA1A4M		210101		FN1A4MX		2801623(6)				-J.			2501623(6)		_	. 1	NRSA02J-682NY				NRSA02J-222NY	NRS181J-222NY
	A REF.	0 142	0 143		Q 171	Q 220	ı	0 242					0 301	a 501					0 651			E 023		0 701	1							a 730				0 742		ł	9 1		Q 752			1	G 755		0 757			Q 941	8 942	0 943			200	- 1		Q 981		0 084		<b>ا</b> ت			0 922		4	R 125
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	SUFFIX						GrGE	6,6E																																-													6,6E															_
BLOCK NO. DILLILL	UFFI						G.6E	30.5						-									-			-													-														6,6E								-		-	-	-			
CK NO.	KS SUFFI	FEED THRU CAP	CTOR	CONNECTOR	CONNECTOR	CONNECTOR	ZENER DIODE G.GE	-	1001			,	ZENER DIODE	ZENER DIODE	7FNFR DIODF				SI DIODE	ST DIODE		30010	SI DIODE	SI DIODE	STATORE		DIODE	DIODE	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		DIODE	DIODE	ZENER DIODE		7 010DE	SI DIODE	D10DE	nione	10010		ZENEK DIODE	ZENER DIODE	10101E			KENER DIODE	0100E	1010		DIUDE			IC Gree				J 6			OI.		20101	INDUCTOR	INDUCTOR	LAMP	CLUTATOR	TARROLOGY	
CK NO.	NAME REMARKS SUFFI	THE STATE	VMC0135-005 CONNECTOR	VMC0135-006   CONNECTOR	CP907 VMC0232-016 CONNECTOR	CP908 VMC0278-001   CUNNECTOR		HSM2836C DIODE	H755 KERS 7ENER DIODE	UTCS ACDS TENED	NO. 20 20 20 20 20 20 20 20 20 20 20 20 20	HZS5.6EBZ ZENER	HZS5.6EB2 ZENER		7 FNFR	10000	Danioc E	HZSS.1EB1 ZENER	IS		707 7007	6430.660	721 MA165 SI DIODE	722 MA165 SI DIODE	23 MA165 ST DIODE	9710	HOMESOOC	725 HSM2836C DIGDE	U7C10EB1	10701070		741 HSM2838C DIODE	H7S10EB2 ZENER DIODE	2010101	MASTOUCH	760 MA165   SI DIODE	920 HSM2838C DIODE	JYZBCNOH	2010	FENER	MA/00 ZENER	944 MTZ4.7C   ZENER DIODE	MA165	11044 600	TO TO SOUTH TO THE TOTAL TO THE	HZSS.1EBZ ZENER	970 HSM2836C   D10DE	JYX8CWOH		USK10C-E	XKA15Z18N	XRA15218N		UPD17005GF-664   IC		77.5800	000000000000000000000000000000000000000	UPD4052BC	IC970 VC4580D IC	IC980 LA4445 IC	1 44.705	LA4405	VGP025K-470Y	791 VQP025K-101 INDUCTOR	L650 V620001~037 LAMP	2561632(6)	(9)(7)(7)	[25K301(P,Q)   FET

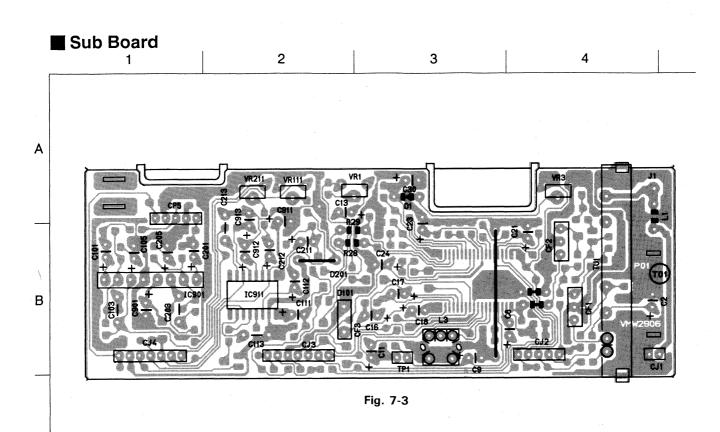
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	SUFFIX		:																									פיסם	6.6E	6,6F	19.5 19.5	1000	1000	6.6H	6, GE	9,6	ט ני	9.78E	G.6E	G,GE												-													-			
BLOCK NO. 001	REMARKS	3.3M 5% 1/10W	24	•	ιν %	10K 5% 1/10W	470K 5% 1/10W	22K 5% 1/10W	100K 5% 1/10W		2	2.2K 5% 1/10W	1.0K 5% 1/10W	1.0K 52 1/10W			10K 5% 1/10W	1.8K 5% 1/10W	:	25 5% 1/10%	3.9 5% 1/10W	10K 5% 1/10W		6.8K 5% 1/10W	2.2 5% 1/10W	2 2 52 1/10W		4	χ 34	5%	3	1	•		470 5% 1/10W	47K 5% 1/10W		وأز	۲. پو	1.0K 5% 1/10W	1.0K 5% 1/6W	4	e	7,		1.2K 5% 1/6W	3	2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ž.	2.2K 5% 1/8W	5% 1/8W	2.2K 5% 1/8W	7K 5%	, n	2 3	2	47K 5% 1/10W	47K 5% 1/10W	47K 5% 1/10W	2 3	8	47K 5% 1/10W	47K 5% 1/10W		8	47K 5% 1/10W	10K 5% 1/10W	, 7 , 0
	PARTS NAME	MG RESISTOR		MG RESISTOR		MG RESISTOR	MG RESISTOR	RESI					MG RESISTOR			S C S	MG RESISTOR	MG RESISTOR			MF RESISTOR	MG RESISTOR		Ē	-	E	2 2		MG RESISTOR						MG RESISTOR	MG RESISTOR		CANDON NESTS ON		MG RESISTOR	CARBON RESISTOR			- 1	CARBON RESISTOR	CARBON RESISTOR	-			MG RESISTOR	MG RESISTOR						MG RESISTOR	MG RESISTOR	MG RESTSTOR			MG RESISTOR	MG RESISTOR	COTOTO NOGAC	~		MG RESISTOR	
	PARTS	250 NRSA02J-335NY				262 NRSA02J-103NY	263 NRSA02J-474NY					275 NRSA02J-222NY	276 NRSA02J-102NY				280  NRSA02J-103NY	281 NRSA021-182NY			283 NRSA02J-3R9NY				292 NRSA02J-2R2NYM	294 NPSACTI-SBONYM			308 NRSA02J-102NY			- 1			506 NRSA02J-471NY			_L	532 NRSA02J-152NY	71 NRSA02J-102NY	622 0RD161.1-102			- 1.		626 0RD161J-122				52 NRS181J-222NY	653 NRS181J-ORONY						704 NRSA02J-473NY	705 NRSA02J-473NY	705 NRSA02.1-473NY	_		708 NRSA02J-473NY	709 NRSA021-473NY			711 NRSA02J-473NY	712 NRSA02J-103NY	
	A REF	1	× 2			R 2	ł	R 2					٠.	D 2.					ŧ	2 6						1					Δ.	ı				٥		ı	<u>ح</u>					Ų	8						l				4 6	ı	<u>۸</u>					~	P 7		× :			
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	SUFFIX					6,6E																		***																																20 0	0.0E	•••										
BLOCK NO. OHIIII		3.9K 5% 1/6W	5% 1/6W		5% 1/6W	5x 1/10W	4.7K 5% 1/10W	5% 1/10	24 4 14	• •	<b>e</b> 2		390K 5% 1/6W			0/1 %	100K 5% 1/6W	3.3M 5% 1/10W		27 7/1	2.2K 5% 1/10W	22K 5% 1/10W	,	Ξ	470K 5% 1/10W	22X 5% 1/10W		77.	2.2K 5% 1/10W	2.2K 5% 1/10W	5% 1/1	24 24 40		10 T 90	10K 5% 1/10W	1.8K 5% 1/10W	2		5% 1/10	10K 5% 1/10W	6.8K 5% 1/10W	2 2 5% 1710%		7/1 %	3.3K 5% 1/10W	5% 1/	2K 5% 11		77 %	.2K 5% 1/	2.2K 5% 1/8W	3.9K 5% 1/6W	680 5% 1/64		52 17	2007 4 42	3% 1/10W	5% 1/1	270 5% 1/10W	22 11/			100K 5% 1/6W	390K 52 1/4W	1	0 T W	100K 5% 1/6W	100K 5% 1/6W
×	REMARKS SUFF!	.9K 5% 1/6	RESISTOR 680 5% 1/6W	ARBON RESISTOR 2.2K 5% 1/6	RESISTOR 1.2K 5% 1/6W	220K 5% 1/10W	5% 1/1	RESISTOR   270 5% 1/10	ALL PECTOTOD A 8K SY 1/4	PECICION A AK AK	AESTOLON STORY	RESISTOR 100K 5%	RESISTOR 390K	RESISTOR 680 5	27 7 25 AOOT GOTOTO	RESISION TOUR SA 1/0	5% 1/6	5% 1/1	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	KESISIUK S.SM SK 1/1	RESISTOR   2.2K 5% 1/1	5% 1/10	20101010	KESISIUK 10K 5% 1/10	7	1	1010101 COLUMN 101010	NEGLECTON TO TOTAL	RESISTOR   2.2K 5% 1/1	SISTOR   2.2K 5% 1/1	RESTSTOR 1 OK 52 1/1	DECTOTOD 1 OF SW 174	THE TOTAL PROTOTOR AND	SUN RESIDIUM 100 34 1/04	RESISTOR   10K 5% 1/10	7	PECTOTOR 72 5% 1/10	SOLUTION OF SOLUTI	RESISTOR   3.9 5% 1/10	RESISTOR   10K 5% 1/10	5% 1/1	RESISTOR 2 2 5% 1/1	TOTAL STATE OF THE	KESISIUR C.C 34 1/1	RESISIOR 5.3K 5% 1/	RESISTOR 6.8K 5% 1/	BESTSTOR 2 2K 5% 17	27 20 2007	RESIDIOR TOOK 36 IV	RESISTOR 2.2K 5% 1/	.2K 5% 1/	RESISTOR 3.9K 5% 1/	ν. %	RESISTOR 2 2K 5% 11	RESISTOR 1 2K SX 1/	SOLUTION TO SOLUTION OF A CACH	KESISION CZOK SA IZION	RESISTOR 4.7K 5% 1/	5% 1/10	STOR 6 8K 52 116	THE TOTOL OF THE T	KESISIUK 3.3K 5% 1/0	STOR 100K 5% 1/	RESISTOR 390K 5% 1/	2000 0000000000000000000000000000000000	KBUN KESISIUK 06U 5A 1/0	RESISTOR 100K 5% 1/	
BLOCK	ARTS NAME REMARKS SUFFI	RESISTOR 3.9K 5% 1/6	QRD161J-681   CARBON RESISTOR 680 5% 1/6W	QR0161J-222   CARBON RESISTOR 2.2K 5% 1/6	QRD161J-122   C RESISTOR   1.2K 5% 1/6W	MG RESISTOR   220K 5% 1/10W	MG RESISTOR 4.7K 5% 1/1	2 NRSA02J-271NY MG RESISTOR 270 5% 1/10	DODIAZILKRO CADRON DECICIOD 4 8K 59 114	OBSTANT OF THE PROTECTION OF THE PARTY OF TH	WANTED CANDON AEGICALON OF	CARBON RESISTUR 100K 5%	4 CARBON RESISTOR 390K	ORDIGILESSI CARBON RESISTOR 680 5	SOLA ST. NOOF COLOTOTE TOUGHT NOOF AND STORES	ERDIOLU-104 CARBUN RESISION 100N SE 1/0	RESISTOR 100K 5% 1/6	RESISTOR 3.3M 5% 1/1	ADDAAD 17500 MC DESTRETON 7 24 CV 4/4	NECKOL-5550NT MG KESTSIUK 5.58 57 17	MG RESISTOR   2.2K 5% 1/1	RESISTOR   22K 5% 1/10	STATE OF THE STATE	MRSAOZJ-103NY MG KESISIOK 10K 52 1/10	RESISTOR 470K 5% 1/	RESTSTOR 22K SX 1/10	ANCHORUS ANCH ANCHORUS ANCH ANCH ANCH ANCH ANCH ANCH ANCH ANCH	ביים ער ער איים ער ביים ער ביי	MG RESISTOR 2.2K 5% 1/1	RESISTOR   2.2K 5% 1/1	MRSAD21-102NY MG RESTSTOR	A MDCADO 1-400MV MC DECTETOD 4 OF C4 174	CONTRACTOR TOUR DESCRIPTION TO BE AVER	WENTOTO TOT CARBON RESISION 100 38 1/08	NRSA02J-103NY   MG RESISTOR   10K 5% 1/10	RESISTOR 1.8K 5% 1/	APCAD21-330WY MG PECISTOP 33 5% 1/10	SALAL ST. C. T. C. T. C. T. C. T. C.	NRSAO2J-3K9NY MF RESISTOR 3.9 5% 1/10	DINRSAO2J-103NY   MG RESISTOR   10K 5% 1/10	RESISTOR   6.8K 5% 1/1	M MG RESISTOR 2 2 52 1/1	MDGACC CONTRACTOR MC DECICATION OF A 141	NKSAUCJ-ZKZNIM MG KESISIUR Z.Z. 36 1/1	NRSAUZJ-352NY MG RESISIOR   5.5K 5% 1/	RESISTOR 6.8K 5% 1/	MPS4021-222NV MG RESTSTOR 2 2K 52 17	THE PROPERTY OF STREET STREET	ARSHOZULION TO RESIDENCE TOUR TANK	NRSA02J-222NY MG RESISTOR 2.2K 5% 1/	Y MG RESISTOR   2.2K 5% 1/	QR0161J-392   CARBON RESISTOR 3.9K 5% 1/	CARBON RESISTOR 680 5%	GRADA 1-222 CARRON RESISTOR 2 2K 5% 17	APPLATITO CARRON RESISTOR 1 2K 5K 17	MOCKO CONTOUR MEDICATION CANADA CANADA	MENDER STATE OF STATE	NRSA02J-472NY MG RESISIOR 4.7K 5% 1/	RESISTOR 270 5% 1/10	CARRON RESISTOR & RK 52 11/	AND	GRUIG/J-352 CARBON RESISION 3.5K 5% 1/0	RESISTOR 100K 5% 17	CARRIN RESISTOR SON 5% 1/	CANCELL 1944 CANCEL CAN	WRUIDIU-601 CARBUN RESISIUR 660 3% 1/6	8 9RD161J-104   CARBON RESISTOR 100K 5% 1/	RESISTOR 100K

	SUFFIX															GAGE					G.GE.B.E.GI														
BLOCK NO. 101	REMARKS	3.3K 5% 1/10W 1.0K 5% 1/6W 100K 5% 1/10W 1.8K 5% 1/10W	180K 5X 1/10W	4.7M 5% 1/10W	22 5% 1/6W 47K 5% 1/10W	3.3K 5% 1/10W	10K 5% 1/10W	10 5% 1/10W	1.0K 5% 1/10W	2.2K 5% 1/8W	47K SZ 1/10W 4.7K SZ 1/10W	, X	10K 5% 1/10W								5% 1/8W														
	PARTS NAME	MG RESISTOR CARBON RESISTOR MG RESISTOR MG RESISTOR	RESISTOR	MG RESISTOR	CARBON RESISTOR	,	MG RESISTOR		MG RESISTOR	1	MG RESISTOR		MG RESISTOR	RELAY	CONNECTOR	00	V RESISTOR		PIN CORD ASS'Y		MG RESISTOR														
	PARTS NO.	NRSA02J-332NY QRD161J-102 NRSA02J-104NY NRSA02J-182NY					NRSA02J-103NY NRSA02J-103NY	NRSA02J	NRSA02J-102NY NRSA02J-102NY	1	NRSA02J-473NY NRSA02J-473NY		NRSAUCJ-595NT		VMC0075-002N		QVPA601-503A VCV1001-152		VCV1001-154	_1	NRS181J-ORONY			-											
	AREF.	R 942 R 943 R 945	- 1	R 948	R 950	- 1	R 962		R 970		R 982		R 991	RY981	TP911	VR301	VR740	VR921	VR922	x 701	308 1														
- 1																																			
	SUFFIX						•																												
BLOCK NO. OTHER	UFFI	47K SX 1/10W 10K SX 1/10W 10K SX 1/10W 10K SX 1/10W	K 5% 1/1	2070 5% 1/10W	1.0K 5% 1/10W 10K 5% 1/6W	22K 5% 1/10W	3.3K 5% 1/6W 470 5% 1/10W	1	330 5% 1/10W 10K 5% 1/10W	5% 1/10	470 5% 1/10W 3.3K 5% 1/10W	3	150K 5% 1/10W	0,	27K 5% 1/10W	5% 1/1	4/K 5% 1/10W 2.2K 5% 1/10W	2.2K 5% 1/10W	4/K 5% 1/10W	5% 1/6W	2.2K 5% 1/10W 2.2K 5% 1/10W	7.5	5% 1/	4.7K 5% 1/10W 47K 5% 1/10W	5% 1/10 5% 1/10	x 1/10	330K 5% 1/10W 10K 5% 1/10W	100 5% 1/10W	1/10	5% 1/	4.7K 5% 1/10W	5% 1/10	5% 1/1	1.0K 5% 1/10W	1.2K 5% 1/10W 10K 5% 1/10W
CK NO.	KS SUFFI	5x 1/10 5x 1/10 5x 1/10 5x 1/10	RESISTOR 100K 5% 1/1	RESISTOR   270 5% 1/10	1.0K 5% 1/1 STOR 10K 5% 1/6W	STOR 22K 5% 1/10	CARBON RESISTOR 3.3K 5% 1/6W MG RESISTOR 4.70 5% 1/10W	RESISTOR 1.5K 5% 1/1	1/10	RESISTOR 10K 5% 1/10	RESISTOR   470 5% 1/10 RESISTOR   3.3K 5% 1/1	RESISTOR 220 5% 1/10	5% 1/1	RESISTOR 10K 5% 1/10	RESISTOR   22K 5% 1/10	RESISTOR 100K 5% 1/1	MG RESISTOR 2.2K 5% 1/10W	RESISTOR 2.2K 5% 1/1	MG RESISION 4/K 5% 1/10W CARBON RESISTOR 2.2 5% 1/6W	RBON RESISTOR 2.2 5% 1/6W	5% 1/1 5% 1/1	RESISTOR 2.2K 5% 1/1	RESISTOR 1.0K 5% 1/	RESISTOR   4.7K 5% 1/1 RESISTOR   47K 5% 1/10	SISTOR 47K 5% 1/10	RESISTOR 100 5% 1/10	RESISTOR 330K 5% 1/10 RESISTOR 10K 5% 1/10	RESISTOR 100 5% 1/10	RESISTOR 47K 5% 1/1(	RESISTOR 330K 5% 1/1	54 1/ 52 1/1	RESISTOR 10K 5% 1/10	RESISTOR 10K 5% 1/1	RESISTOR 1.0K 5% 1/1	5% 1/1 % 1/1(
CK NO.	ARTS NAME REMARKS SUFFI	RESISTOR 47K 5% 1/10 RESISTOR 10K 5% 1/10 RESISTOR 10K 5% 1/10 RESISTOR 10K 5% 1/10	NRSAO2J-104NY MG RESISTOR 100K 5% 1/1	NRSAO2J-271NY MG RESISTOR 270 5% 1/10	NKSAO2J-10ZNY MG KESISIUR 1.0K 5% 1/1 QRD161J-103 CARBON RESISTOR 10K 5% 1/6W	NRSAOZJ-223NY MG RESISTOR 22K 5% 1/10	RBON RESISTOR 3.3K 5% 1/6 RESISTOR 470 5% 1/10	NRSA02J-15ZNY MG RESISTOR 1.5K 5% 1/1	RESISTOR 330 5% 1/10 RESISTOR 10K 5% 1/10	NRSA02J-103NY NG RESISTOR 10K 5% 1/10	RESISTOR   470 5% 1/10 RESISTOR   3.3K 5% 1/1	NRSAO2J-221NY MG RESISTOR 220 5% 1/10	RESISTOR 150K 5% 1/1	NRSAD2J-103NY MG RESISTOR 10K 5% 1/10	NRSAOZJ-223NY MG RESISTOR 22K 5% 1/10	NRSA02J-104NY MG RESISTOR 100K 5% 1/1	RESISTOR   4.7K 5% 1/10 RESISTOR   2.2K 5% 1/1	NRSAO2J-222NY MG RESISTOR 2.2K 5% 1/1	IY   MG RESISION   4/K 5% 1/10   CARBON RESISTOR  2.2 5% 1/6W	QRD161J-2R2 CARBON RESISTOR 2.2 5% 1/6W	RESISTOR   2.2K 5% 1/1 RESISTOR   2.2K 5% 1/1	NRSAO21-222NY MG RESISTOR 2.2K 5% 1/1	NRSAO2J-102NY MG RESISTOR 1.0K 5% 1/	RESISTOR   4.7K 5% 1/1 RESISTOR   47K 5% 1/10	NRSAO2J-473NY MG RESISTOR 47K 5% 1/10 NRSAO2J-103NY MG RESISTOR 10K 5% 1/10	NRSAO2J-101NY MG RESISTOR 100 5% 1/10	RESISTOR 330K 5% 1/10 RESISTOR 10K 5% 1/10	RESISTOR 100 5% 1/10	NRSAO2J-473NY MG RESISTOR 47K 5% 1/10	NRSAO2J-334NY MG RESISTOR 330K 5% 1/1	RESISIOR 4.7K 5% 1/1	NRSA02J-103NY MG RESISTOR 10K 5% 1/10	NRSAOZJ-103NY MG RESISTOR 10K 5% 1/1	NRSAOZJ-102NY MG RESISTOR 1.0K 5% 1/1	RESISTOR 1.2K 5% 1/10 RESISTOR 10K 5% 1/10

### ■ AM Board and Parts List

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		C25 - 4 - 2 - 2 - 2 - 3	(18) (R)				SUFFIX					
	RI37		161 09 1621 R16 09 1621 C16 R38	GF1		BLOCK NO. 02	2	5% 1/10W 5% 1/10W ( 1/10W 5% 1/10W 5% 1/10W	1/10W 1/10W X 1/10W 1/10W 1/10W	5% 1/10W 5% 1/10W % 1/10W 5% 1/10W 5% 1/10W	5% 1/10W	
				0x 2 C32			100			1.0K 5 22K 5% 10 5% 3.3K 5 6.8K 5		
(E)				30 11230 0024			TS	RESI RESI RESI RESI RESI	RESI RESI RESI RESI RESI	MG RESISTOR MG RESISTOR MG RESISTOR MG RESISTOR MG RESISTOR	MG RESISTOR AM RF AM RF IFT IFT	LW RF COIL LW RF COIL T.CAPACITOR T CAPACITOR
	R7733	029 032 C5 C7 C5	C 8 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	E 37		-	SO I	NRSA02J-104NY NRSA02J-104NY NRSA02J-330NY NRSA02J-223NY NRSA02J-102NY	NRSA02J-103NY NRSA02J-820NY NRSA02J-332NY NRSA02J-153NY NRSA02J-473NY	NRSA02J-102NY NRSA02J-223NY NRSA02J-100NY NRSA02J-332NY NRSA02J-682NY	NRSA02J-222NY VQZO04O-001 VQZO04O-101 VQT7A21-105 VQT7A11-209	VQZ0056-001 VQZ0056-001 QAT3720-200M QAT3720-600M
			PIZ	P12 HW2823	Fig. 7-2	2	A REF.	0 0 V 0 V		15 16 17 37 38	30	T 30 V6 T 31 V6 TC 30 Q4
SUFFIX												
BLOCK NO. DE	820PF 5% 50V 22MF 20% 16V .010MF 10% 25V	.022MF 10% 25V .022MF 10% 25V 10PF 50V .022MF 10% 25V .012MF 10% 25V	430PF +50:-10% .047MF 10% 25V .010MF 10% 25V .022MF 10% 25V 1.0MF 20% 50V	.010MF 10% 25V .010MF 10% 25V .010MF 10% 25V 22MF 20% 16V 1.0MF 20% 50V	.010MF 10% 25V .010MF 10% 25V .068MF 10% 25V 47MF 20% 16V .047MF 10% 25V		12PF 5% 50V					100K 5% 1/10W 1.0K 5% 1/10W
ts List	IN CAPACI CAPACI CAPACI	C CAPACITOR C CAPACITOR C CAPACITOR C CAPACITOR C CAPACITOR	C CAPACITOR C CAPACITOR C CAPACITOR C CAPACITOR E CAPACITOR	1	1	C CAPACITOR C CAPACITOR C CAPACITOR	CAPACI	CERAMIC FILTER CONNECTOR CONNECTOR VARI.CAP	VARI.CAP SI DIODE SI DIODE PIN DIODE	SI DIODE IC INDUCTOR OSC COIL(MW) OSC COIL(LW)	FET TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	TRANSISTOR TRANSISTOR MG RESISTOR MG RESISTOR MG RESISTOR
M Board Parts List	V44611-003 NCS21HJ-821AY QEK41CM-226 NCB21EK-103AY		NCT21CH-431AY NCB21EK-473AY NCB21EK-103AY NCB21EK-223AY QEK41HM-105		1				SVC321SP MA165 MA165 1SV121 1SV121	MA165 LA1135 V@PO25K-470Y V@M7U01-501 V@L7U01-501	2SK519(EL,FL) 2SC1740S(R,S) 2SA1175(HFE) RN1202 2SC2785(HFE)	
● AM	ရောပပပ	-			C 21 C 22 C 24 C 25 C 25	C 28		C1904 C1905 C1905 D 1	00000 W 4 W 80 W	D 30 IC 1 L 1 L 2 L 30	9 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	

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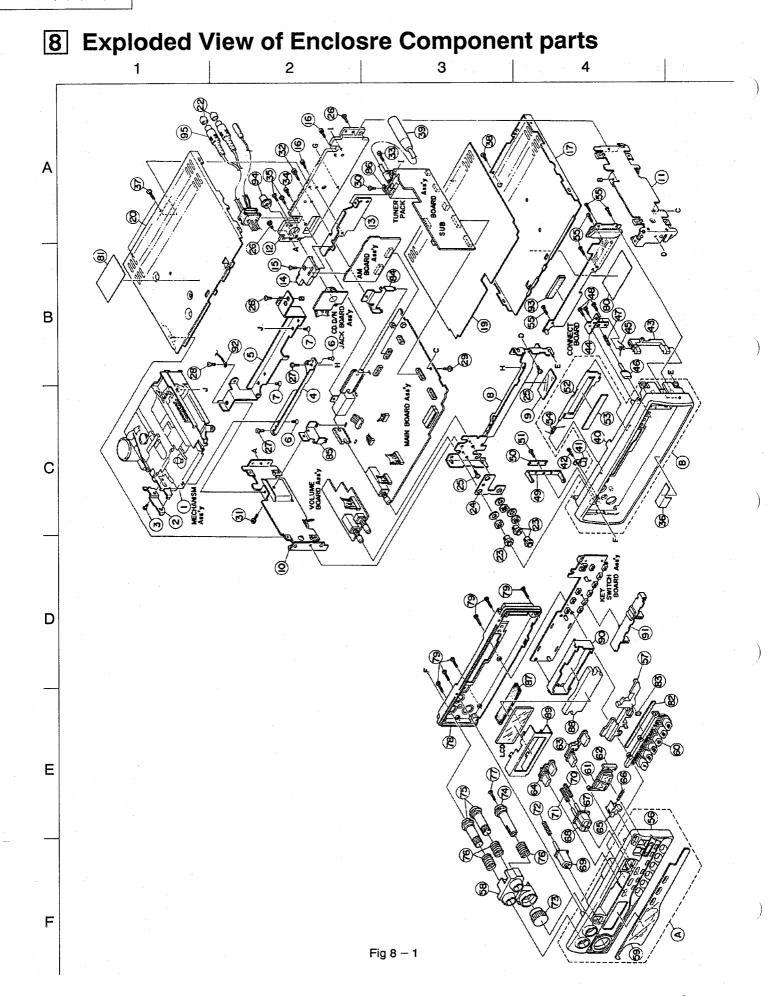
_	Sub	BOard	Parts List	BLOCK NO. 03	
	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	BUS 1	NRS181J-ORONY NRSAOZJ-ORONY	MG RESISTOR MG RESISTOR	5% 1/8W 5% 1/10W	
		Ŧ	CAPACI	F 10%	
		WEK41HM-104 NCB21HK-223AY	C CAPACITOR		
	1	12	C CAPACITOR	.047MF 10% 25V	
		14. 14.	CAPACI	10%	
		QEK41HM-105	E CAPACITOR	1.0MF 20% 50V	edel la france
-		1 1 1 1 1	CAPACI	10%	
	~ ,	ı	CAPACI	7 16	
-	2 12	NCT21CH-120AY   AFK41CM-10A	C CAPACITOR	12PF +50:-10% 1	
	• ~	1HK-	CAPACI	10%	
-	15	QCY81HK-	. CAPACI	10%	
	16	QEK41HM-		200	
	1 8		E CAPACITOR	1.0MF 20% 50V	
	19	NCB21EK-47	SAPACITOR	.047MF 10% 25V	
	C 50	NCB21HK	CAPACITOR	.022MF 10% 50V	
	C 21		CAPACITOR	.22MF 20% 50V	
	27 2	NCB21HK-105A	APACITOR	20ME 20% 14V	
	2 2 2	ØFK/	CAPACITOR	47MF 20% 16V	
	c 25	NCS21HJ-	CAPACITOR	680PF 5% 50V	
	C 26	NCB21HK	CAPACITOR	6800PF 10% 50V	
	22 27	NCB21HK-472AY	CAPACITOR	4700PF 10% 50V	
	29	NCB21HK	CAPACITOR	.022MF 10% 50V	
_	30	QEK41HM-105	CAPACITOR	1.0MF 20% 50V	
	32	NCB21EK-153AY	CAPACI	10% 2	
	33	NCB21EK-153AY	C.CAPACITOR	.015MF 10% 25V	
	35	NCB21EK-473AY	C CAPACITOR	10% 2	
_	36	QCS11HJ-100	CAPACI	5% 500	
	C 101	QEK41HM	E CAPACITOR	47MF 20% 50V	
	103		FILM CAPACITOR	7 7 T	
	c 104	NCB21HK	CAPACITOR	10%	
	c 105		E CAPACITOR	3MF 20% 1	
	C 111	QEK41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 113		CAPAC	2 2 2	
	C 114		ပ	F 10	
_	C 201	WH1771B	10	20%	
	202 0	ACSZ1HJ-101AT	FILM CAPACITOR	7 7 7 4F 5%	
	C 204		ACITOR	680PF 10% 50V	
	c 205	QEKF1AM	ACI	20% 1	
	C 211		E CAPACITOR	1.0MF 20% 50V	
	c 213	GFV41HM-1	CAPACII	22MF 5% 5	
	C 214	NCB21HK-182	APACITO	F 10%	
_	C 901	QEKF1CM-10	E CAPACITUR	100MF 20% 16V	

				y				,	<del>,</del>	<del></del>	,	
NO. 03[[[[[]]	SUFFIX			G1,6,6E B,E								
BLOCK NO. 03	REMARKS	330K 5% 1/10W 15K 5% 1/10W 270 5% 1/10W 8.2K 5% 1/10W 330K 5% 1/10W	15K 5% 1/10W 270 5% 1/10W 8.2K 5% 1/10W 100 5% 1/8W 18K 5% 1/10W	N N % %								
	PARTS NAME	RESISTOR RESISTOR RESISTOR RESISTOR RESISTOR	RESISTOR RESISTOR RESISTOR RESISTOR RESISTOR		SEMI.V.RESISTOR SEMI.V.RESISTOR SEMI.V.RESISTOR SEMI.V.RESISTOR							
	PARTS NO.	NRSAO2J-334NY NRSAO2J-153NY NRSAO2J-271NY NRSAO2J-822NY NRSAO2J-334NY		NRSA02J-2 NRSA02J-2 VMC0075-0 VAF2S07-3 VAF2S07-4	QVPA603-333A QVPA603-223A QVPA603-223A QVPA603-223A							
	A REF.	1 1		R 912 R 913 TP 1 TU 1	VR 1 VR 3 VR111 VR211							
	SUFFIX										B, E, GI	6,6E B,E,GI 6,6E
BLOCK NO. 03	REMARKS	.010MF 10% 50V 47MF 20% 16V 1.0MF 20% 50V 4.7MF 20% 25V				1.0K 5% 1/10W 150 5% 1/10W	2x 1/1 2x 1/1 3x 1/1 5x 1/1		5% 1/1 5% 1/1 5% 1/1 5% 1/1 5% 1/1	5x 1/1 5x 1/1 5x 1/ 5x 1/ 5x 1/1	0	22K 5% 1/6W 22K 5% 1/6W 33K 5% 1/10W 15K 5% 1/10W 47 5% 1/10W
	PARTS NAME	C CAPACITOR E CAPACITOR E CAPACITOR E CAPACITOR C FILTER	,	CONNECTOR CONNECTOR SI DIODE DIODE	IC IC IC POST PIN INDUCTOR	IFT TRANSISTOR TRANSISTOR MG RESISTOR MG RESISTOR		MG RESISTOR MG RESISTOR MG RESISTOR MG RESISTOR MG RESISTOR	•			CARBON RESISTOR CARBON RESISTOR M.G.RESISTOR MG RESISTOR
	PARTS NO.	NCB21HK-103AY QEK41CM-476 QEK41HM-105 QEK41EM-475 VCF2S3B-102				VQT7F07-504   ZSC2814 (F4F5) HL   UN2213   NRSA02J-102NY   NRSA02J-151NY	1		.1			QRD161J-223   QRD161J-223   NRSA02J-333NY   NRSA02J-153NY
	REF.	C 902 C 911 C 912 C 913 CF 1	22233	25	1C 1 1C901 1C911 J 1	L 3 0 911 R 1		R 10 R 11 R 112	R 13 R 15 R 15 R 16			R 29 R 30 R 31

■ Key/Display BOard 2 3 4 1 Α В C D Ε F Fig 7 - 4

### ● Key/Display Board Parts List

조	Key/Display Board	Parts	List BLOCK NO. 04					BLOCK NO. 04	
A REF.		PARTS NAME		SUFFIX	AREF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 791 C 792 C 793 C 793 C 7930		C CAPACITOR C CAPACITOR TS E CAPACITOR CONNECTOR LED	680PF 5% 50V .022MF 10% 25V 4.7MF 20% 6.3V MOND		\$ 604 \$ 605 \$ 605 \$ 607 \$ 607	9591811-V012 9591811-V012 9591811-V012 9591811-V012	TACT SWITCH TACT SWITCH TACT SWITCH TACT SWITCH TACT SWITCH	4/RANDOM. 5/MAGAGINE 6/MAGAGINE+ 1/P.SCAN	-
1	999	1E0 1E0 1E0 1E0 1E0	P.SCAN DOLBY MAG UP MAG DOWN RANDOM		1	1	3	HBS/SK.DK SHIFT UP/SKIP+ DOWN/SKIP-	
D 607 D 608 D 609 D 610 D 611		0 0 1 0 1 0 1 0 1	HBS SHIFT 1 2 3						
1	2 GL-3HY8 3 GL-3HY8 4 GL-3HY8 5 GL-3HY8 6 GL-3HY8	9999	4 5 6 FUNC BAND						
D 791 D 792 D 793 D 794 D 795		0100E 0100E 0100E 0100E							
IC791 LCD 1 PL602 PL603 PL603	\	IC LCD LAMP LAMP							
R 601 R 603 R 603 R 604 R 605	1 NRSA02J-271NY 2 NRSA02J-392NY 3 NRSA02J-222NY 4 NRSA02J-152NY 5 NRSA02J-102NY	MG RESISTOR MG RESISTOR MG RESISTOR MG RESISTOR MG RESISTOR							
ľ		RESI RESI RESI RESI RESI	820 5% 1/10W 270 5% 1/10W 3.9% 5% 1/10W 3.9% 5% 1/10W 2.2% 5% 1/10W	B/E/GI G/GE					
ı	<u> </u>	MG RESISTOR MG RESISTOR MG RESISTOR MG RESISTOR MG RESISTOR		BvEvGI GvGE					
	8 NRS181J-152NY 9 NRSAO2J-182NY 1 NRSAO2J-473NY 2 NRSAO2J-154NY 3 NRSAO2J-103NY	RESISTOR RESISTOR RESISTOR RESISTOR RESISTOR	1.5K 5% 1/8W 1.8K 5% 1/10W 47K 5% 1/10W 150K 5% 1/10W 10K 5% 1/10W						-
R 794 R 795 S 601 S 602 S 603			10K 5% 1/10W 10K 5% 1/10W 2/MONO BAND/CLOCK 3/DOLBY			·			

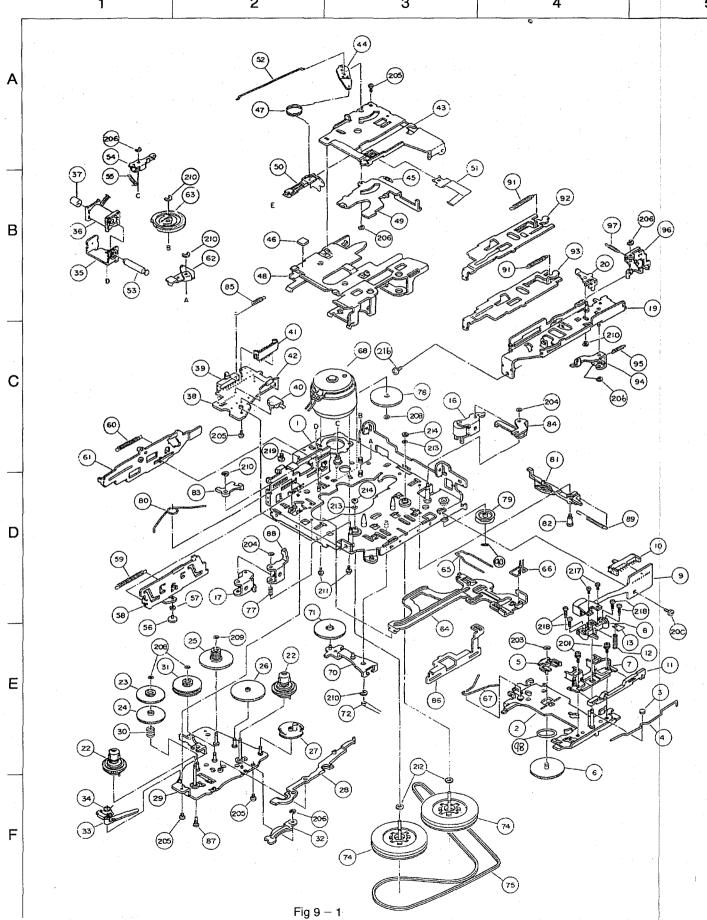


### ● Enclosuer Component Parts List

		<u> </u>		BLOCK NO. M1MM	للللا	<del></del>	
7	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLE
†	Α	ZCKSRT70G-NPA	NOSE PIACE ASSY		1	G,GE	
		ZCKSRT7OK-NPA	NOSE PIECE ASSY		1	B,E,GI	
1	В	ZCKSRT70K-FB	FRONT PANEL ASSY		1		1
1	1		MECHANISM ASS'Y	2CH HEAD MECHA	1		
1	2	VKL7226-003	EJECT LEVER		1		
†	3		MINI SCREW	FOR EJECT LEVER	1		]
ı	4	VKM3645-001	MECHA BRACKET F		1		
ł	1	VKM3594-001	MECHA BRACKET R		1		1
1	6	SSSP3005Z	SCREW	MECHA BRACKET F	2		1
I		SSSP3005Z	SCREW	MECHA BRACKET R	2		
†		VKM3642-001	FRONT BRACKET		1		
	1	VYSS1R4-040	SPACER	F.BRACEK BOTTOM	1		1
		VKM3643-002	SIDE BRACKET L		1	į i	1
	1	VKM3644-001	SIDE BRACKET R		1		1
		VJC3247-008	REAR PANEL		1		
1		VKL7291-001	BRACKET	REAR PANEL	1		
		VKS3531-001	TUNER HOLDER	AM TUNER BOARD	1		1
	!	SSST2606Z	SCREW	TUNER HOLDER	1		
1		LPSP2606Z	SCREW	BRACKET	2		
1		VKM3352-004	BOTTOM COVER	1	1		
7		VMA3209-002	INSULATOR		1		}
		VKM3398-005	TOP COVER		1		
١		VYTA500-001	PIN CAP		2		1
		VKS5439-001	SHAFT KNOB		3		1
		VKL7274-002	VOLUME HOLDER		1		
1		SDST2606Z	SCREW	FRONT+SIDE(L,R)	2		
	- 1	SDST2606Z	SCREW	SIDE L.R+REAR	2		
-		SDST2606Z	SCREW	FRONT BRACKET	2		1
		SSST2606Z	SCREW	M.BKT,SIDE	2		
		SDST2606Z	SCREW	MAIN BARD+SIDE	1		
7		SDST2606Z	SCREW	TUNER PACK	1		
		LPSP3005Z	SCREW	SIDE IC BRACKET	1		
		LPSP2606Z	SCREW	R.PANEL+IC BKT	1		
		LPSP2606Z	SCREW	ANTENA CORD	1	1 1	1
		LPSP2606Z	SCREW	11PIN CONNECTOR	1		
4		SDSF2608Z	SCREW	REAR+MIN DIN JA	2		
		VNF3428-001	POP		1		1
		LPSP2606Z	SCREW	TOP COVER	2		
		LPSP2606Z	SCREW	BOTTOM COVER	1		
		VMP0029-027	ANT CORD		1		1 .
4		VJC2489-002	FRONT CHASSIS		1		
		VJK4399-002	LENS		1		
		SPSN1755N	MINI SCREW	F.CHASSIS+LENS	1		
		VKS5438-001	LOCK LEVER		1		
		VKL7267-001	LEVER BRACKET		1		
		VKU7287-001 VKW5093-001	TORSION SPRING	FOR LOCK LEVER	1		1
		VXP5139-001	RLS KNOB		1	1	
		VKW3001-298	COMP.SPRING	RLS BUTTON	1		
		SDSF2006Z	SCREW	F.CHAASIS+L.BKT	3		
		VKY4665-00C	LOCK SP ASS'Y		1	1	
_			PLATE		1		1
		VKL7647-001	I .	SPRING PLATE	1	1	
		SDSF2008M	SCREW	SINTHG I THIE	1	1	
		VJC4145-002SS	CASSETTE LID		1		
	53	VJC4146-021	LID PLATE		1	1	1

				BLOCK NO. MIMM	Ш		
Δ	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
Н	55	SPSN1755N	MINI SCREW	F.CHASSIS+C.PWB	5		
		VJG1221-002	FRONT PANEL	1	1		
		ZCKSRT7OK-LENS	LIGHT LENS ASSY	SERVICE PARTS	1		
		VJK2182-001	KNOB LENS		1		- [
		VJK2183-001	FINDER	·	1	B,E,GI	
H		VJK2183-002	FINDER		1	G,GE	
	60	VXP2066-002	PRESET BUTTON		. 1		
П		VXP3571-002	DOWN BUTTON		1		
11		VXP3572-002	UP BUTTON		1		
		VXP3577-003	PUSH BUTTON	1	1		
$\vdash$		VXP3578-001	PUSH BUTTON		1		
		VXP3573-003	DETACH BUTTON(F		1		
		VKW3001-302	COMP. SPRING		1		
		VXP3574-001	FF BUTTON		1		1
1 1		VXP3575-001	REW BUTTON		1		
H		VXP3576-001	EJECT BUTTON		1		
	,	VKW3001-304	COMP. SPRING	FOR FF BUTTON	1		1
		VKW3001-304	COMP. SPRING	FOR REW BUTTON	1		.]
		VKW3001-304	COMP. SPRING	FOR EJECT BUTTO	1		
11		VXL4428-001	VOL KNOB		1		
H		VKS5445-001	VOL KNOB(R)		1		
		VXL4429-001	TONE KNOB		1 1		
		VKW5071-001	COMP. SPRING	FOR TONE KNOB	3		
		SPSN1755N	MINI SCREW	VOL KNOB(F)+(R)	1		
		VJG1222-002	REAR COVER	Total Kilob Crist City	1		
H		SPSN1755N	MINI SCREW	FRONT+REAR	7		
		VYN3430-003SA	NAME PLATE		1 1	GI	
	80	VYN3430-001SA	NAME PLATE		1	B,E	1
		VYN3430-0013A	NAME PLATE		1	G,GE	
1	0.4	VND4391-001	CAUTION LABEL	· ·	1	0, 02	
H		VYSH102-084	SPACER	FOR PRESET BUTT	1		<b>-</b>
		VYSH102-085	SPACER	FOR PRESET BUTT	1		
		VKL7275-002	IC BRACKET	TOR TRESET BOTT	1		İ
			IC BRACKET		1		
		VKL6996-001	· ·		1		
$\sqcup$		VMA4397-003	SHEILD PLATE INTER CONNECTOR		1		+
	87		1	]	1		
		VJK3612-001	LCD LENS		1		
		VKM3646-001	LCD CASE		1		
		VKS3625-001	LENS CASE		1		
Н		VK\$3622-002	LED HOLDER		1		
1		VWE240-07NTA1	LUG WIRE	CONNECTOR BOARD	1		
		VYSR102-024	SPACER	CONNECTOR BUAKD	1		İ
		VYTA510-001	DIN CAP	,	1		
$\  \ $	95	VMP3249-102	PIN CORD ASS'Y		1		1
Н					-		+
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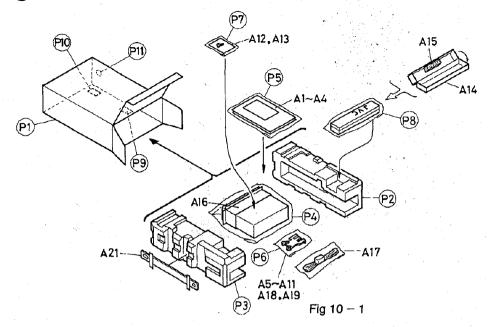


			BLOCK NO. MZI			
REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLI
1	194001512AT	CHASSIS ASS'Y		1		
2	194016503T	HEAD PANEL ASS'Y		1		
	19400303T	SP ROLLER	a sale	1		1
	19400304T	P.R.SPRING		1		
	19400305T	P.GEAR METAL		1		<u> </u>
	19400306T	GEAR		1		,
7	I	TAPE GUIDE U		1		ł
•	19400327T	HEAD HOLDER B		1		
	62011702T	HEAD	P-7542-BB0571	1 1		
	64020207T	SLIDE SWITCH	SSSSA3002A	1		ĺ
		SHIFT PLATE B	JOSOGROCER	1		
	19400328T	H.G SPRING		1		ì
	19400315T			1		ĺ
	9F2635010T	FASTEN WASHER		1		
	194004301T	P.ROLL.ARM(F)AS		1		
	194004302T	P.ROLL.ARM(R)AS		1		
	194005503T	F.R.BKT(M)ASS'Y		1 1		
	194005504T	SEESAW P(M)ASY.		1		
	194006302T	T.REEL ASS'Y		2		İ
	19400612T	P.GEAR (R)		1		
	19400613T	F.GEAR (R)		1		
25	19400615T	P.D.GEAR		1		ļ
26	19400616T	E.D.GEAR		1		
27	19400617AT	REVERSE GEAR(M)		1		
28	19400648T	E.D.PLATE B	·	1		į
. 29	194002501T	M.G.P.SEMI-ASY.		1		
	19400635T	TN SPRING		1		i
	194006312T	P.CLUTCH ASS'Y		1		
	194014129T	LIFT UP PLATE		1	*	
	19401464T	ANTI-REV ARM		1 1		i
	19401460T	TRI ARM SPRING		1	•	İ
	19401431T	P.BRACKET(K)		1		
	19401432T	K.F COIL ASS'Y		1		
	19401433T	CORE(K)		1		l
	19400704T	SW SUBSTRATE		1		į
		SLIDE SWITCH	SSSSA2001A	1		
	64020206T	PUSH SWITCH	SPVC11001A	1		_
40			53253-1020	1		
	68140248T	CONNECTOR	ERB12-01	1		
	ERB12-01	DIODE	ERB12-01	1		
	19400801T	CASE LIFTER	1.	1		
	184008503T	P.E PLATE ASS'Y				
	18400820T	SPRING		1		
	18400875T	CUSSHION RUBBER		1		1
	18400813GT	REVERSE SP.C		1		ĺ
	19401410T	CASSETTE CASE M		1		1
49	19400804T	C.D PLATE B		1		<u> </u>
50	19400810T	PACK SLIDER		1		į
51	19400806T	PACK PRESS.SP.		1		1
52	18400823T	P.E SPRING		1		
53	19401434T	PLUNGER(K)		1		
	194020505T	T.A.PLATE ASS'Y		1		1
	19401437T	T.A.PLATE SP.		1		:
	19400901T	H.P.ROLLER(A)		1		
	19400902T	H.P.ROLLER(B)		1		į
	; . / TUU / UL		1	1		

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	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
Δ			C.H.SPRING	A DIATE O	1		
	- 1	19400905T	PUSH LEVER SP.		1		
	1	19400906T 19400907T	PUSH LEVER M		1		
	61	194009071 194020502AT	K.F PLATE ASS'Y		1		
	1	194020302AT	K.F CAM GEAR		1 1		
Н		1940147391 19401001T	MAIN PLATE		1		+
		194010017 19401002T	M.S.SPRING		1		
	66		H.S.SPRING		1		
		19401667T	K.F.SPRING		1	*	
		194011310T	MOTOR ASS'Y	MCI-5U3LCKA	1		
$\vdash$		194012504T	FR PLATE ASS'Y	1102 2002 0111	1		
	71		F.GEAR		1		
	72		FR SPRING M		1		
П	74		F.L.CAPS.ASS'Y				
		19401417T	MAIN BELT		2		
	77	18400437T	P.P SPRING		1	<u> </u>	
		194014123T	MAIN GEAR M		1		
	79	194014115T	MIDDLE PULLEY		1		
		19401443T	HEAD PANEL SP.M		1		
		19401405T	TRIGGER ARM(C)		1		
$\sqcap$	82	19401406T	COLLAR SCREW(T)		1		
	83	19401442T	H.P.PUSH ARM(K)		1		
	84	19401409T	SEESAW WRK.PLT.		1		
	85	19401412T	POWER SW.SPRING		1		
	-86	194014127T	FR SLIDE PLT.M		1		
	87	19401415T	COLLAR SCREW(P)		1		
		19401416T	H.P.RETURN ARM		1		
	3	19401407T	T.A.SPING(C)		1		
	90	9W0225010T	P.WASHER CUT	0.85X2.8X0.25	1		
Ш	91	19401589T	FR LEVER SPRING		2		
	92	19401590T	PUSH LEVER		1		
		19401591T	PUSH LEVER		1		
		19401503T	P.C.PLATE		1		
		19401504T	P.C.SPRING		1		
Ш		19401505T	ROCK PLATE (M)		1		
	97	19401506T	ROCK PLATE SP.M		1		İ
	•	9W0540020T	HL WASHER	10 X 14 X 0.4	1		
		9P1220051T	S TAPPING SCREW	M2 X 5	1		
		9P0220051T	TAMS SCREW	M2 X 5	2		
Ц		9W0640070T	HL WASHER CUT	2.1 X 4 X 0.4	1 2		<del>- </del>
	1	9W0630060T	HL WASHER CUT	1.6 X 3.8 X 0.3	4		
	1	9C0420303T	S TAPPING SCREW	FOR CAMERA M2X3	4 5		
	4	9E0100152T	E RING	1.2X3X0.25	5		
		9W0625030T	HL WASHER CUT	1.6 X 3.4 X 0.3	1		
$\vdash$		9W0630050T	HL WASHER CUT	S2.0	3		<del>- </del> -
		9E0100202T 9P0220031T	TAMS SCREW	M2 X 3	2		
		9W0513060T	HL WASHER	2.1 X 5 X 0.13	2		
		9W05130601	HL WASHER CUT	1.85 X 3.2 X 0.	2		
	3	9W0650030T	HL WASHER CUT	1.5 X 3.2 X 0.5	2		
$\vdash$		9P0226041T	TAMS SCREW	M2.6 X 4	1		+
		9F2720401T	SCREW	FOR HEAD	2		
		9F2220071T	ADJUST SCREW	I was there	4		
	1	9P0226531T	SCREW	M2.6 X 3.5	1		
	217	7:06503311	Tours .				

### 10 Packing Illustration and Parts List



noole	ina	Dorto	Liet
Dack	ına	<b>Parts</b>	LISL

RE							
	F.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLE
A	1	VNN3430-211	INSTRUCTIONS		1		
	- 1	VNN3430-451	INSTRUCTIONS		1 1	Ε.	1
		VNN3030-481	INSTRUCTIONS		1	E	1
			INSTRUCTIONS		1	GI	ì
Α	اد			1	1	·	1
Ā	3		WARRANTY CARD		1	В	1
•	-1		WARRANTY CARD	1	1 1	В	1
					1 1	G	1
Α	اد			1	1		1
Ā					1		1
					1		
				FOR MS	1 1		1
				1	1 1		1
				1	1 5		1
				FOR STRE SPRING			1
Α				FOR SIDE SERING			
A							l .
A					1 4		
Α	,			1	1 1		1
A					1 1		ţ
A					1		<del> </del>
A	16	VKL3732-015		1			
A	17	VMC0014-081A		1	1 1		1
A	18	VKL7649-001	CORD HOLDER		1 1		ļ.
A	19	QHX5080-001	WIRE CLAMP	FOR CORD HOLDER			į .
A	21	VKL5460-001	STAY				<u> </u>
KIT	1	KSRT70K-SCREW1	SCREW KIT 1	P6,A5-A11,A18-A			1
		KSRT30K-SCREW2	SCREW KIT 2	P7,A12-A13			1
P	1	VPC3430-001	CARTON	PRINTED IN SING	1 1		1
P	2	VPH1627-001	CUSHION(L)		1 1		
P		VPH1628-001	CUSHION(R)	* '	1		·
P			POLY BAG	FOR SET	1		
P			POLY BAG	INST.BOOK	1	. `	
P	- 1			SKREW KIT 1	1		
P			POLY BAG	SKREW KIT 2	1		
Þ				FOR HARD CASE	1		
P			SERIAL TICKET	CARTON	1	G	
	. 1			CARTON	1	GE,GI	i .
	1			200	1 1	E	
	. 1				1	В	1 .
ь.	امو			Land Control of the C	1		1
				<b></b>	1 1	G	$\vdash$
-	. 11	W2 L N U U 1 - U U 3	GREEN FOINT ENG		•	_	1
	í						1
	- 1		11	I a series and a s	Ή [		1
	- 1				1		
r restricted to the second of		3 4 4 5 6 6 7 8 9 0 111 123 145 17 12 123 145 17 12 12 12 12 12 12 12 12 12 12 12 12 12	VNN3030-481 VNN3430-471 VNN3430-471 VNN2400-066  BT-20066A BT-20135  VND3050-001 VK24027-002  VK44871-001  VK24027-002  VK3126-002  VK143126-002  VK147233-001  VK17233-001  VYSH118-002  VYSH118-002  VYSH118-002  VYSH18-002  VVSH1627-001  VVSH1627-001  VVSH1627-001  VVSH1628-001  VPC3430-001  VPC346-003  VPD3046-003  VND3046-003  VND3046-003  VND3046-003  VND3046-004  VND3046-004  VND3046-004	VNN3030-481	VNN3030-481	VNN3030-481	VNN30300-481